MAY 1983 NUMBER 465 -- Part II

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Solar-Geophysical Data comprehensive reports

Data for November 1982, October 1980 & Miscellanea

Explanation of Data Reports Issued as Number 462 (Supplement) February 1983

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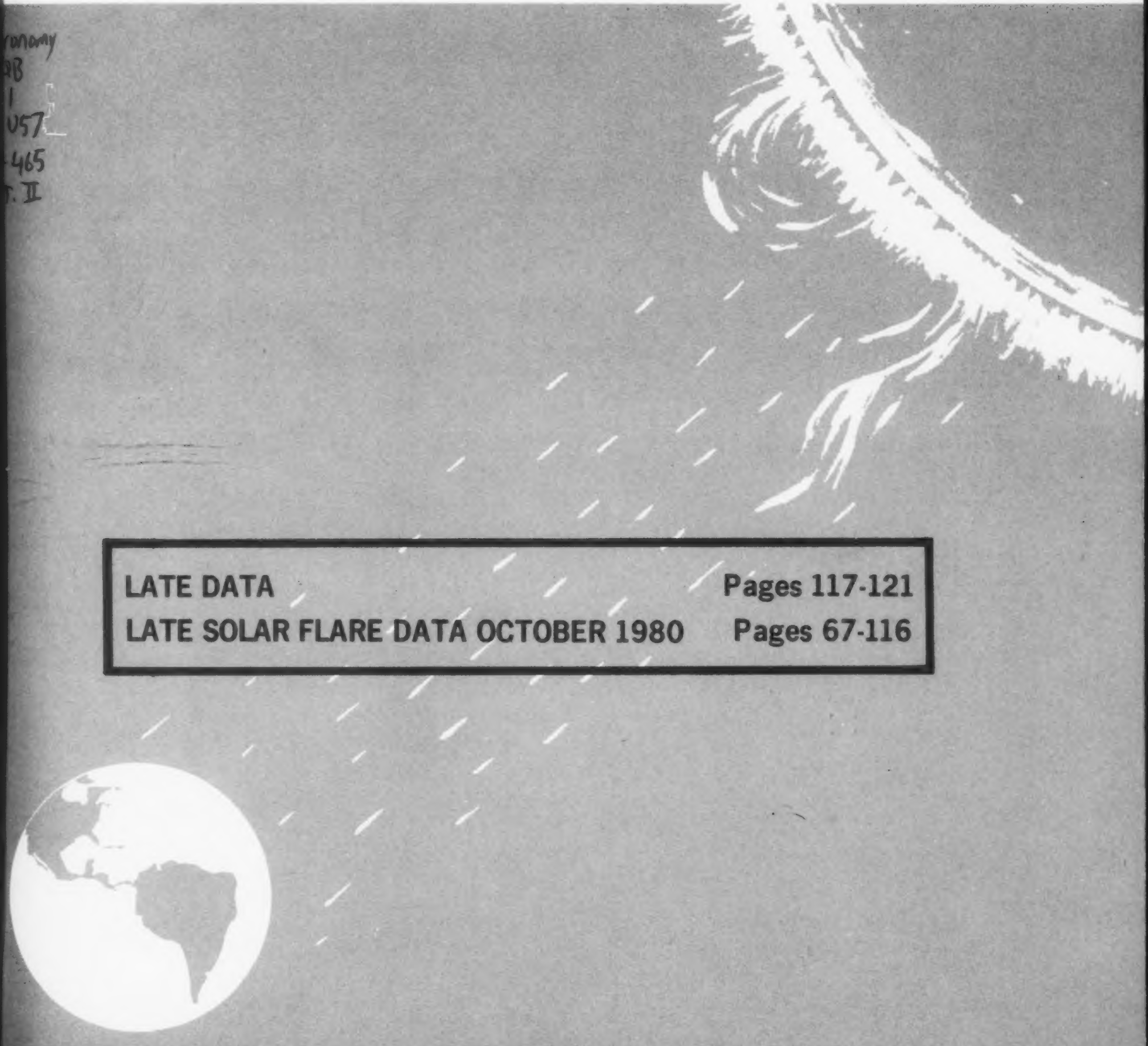

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LATE SOLAR FLARE DATA OCTOBER 1980 Pages 67-116

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Solar - Geophysical Data

Part II (Comprehensive Reports)

NO. 465 MAY 1983

DATA FOR
NOVEMBER 1982
OCTOBER 1980

Michael A. Chinnery, Director
NATIONAL GEOPHYSICAL DATA CENTER
BOULDER, COLORADO

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SOLAR-GEOPHYSICAL DATA

No. 465

Issued in two parts

Helen E. Coffey, Editor

Joe H. Allen, Chief
Solar-Terrestrial Physics Division

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CODE	KIND OF OBSERVATION	1982 MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1983 JAN	FEB	MAR	APR
A.	**SOLAR AND INTERPLANETARY PHENOMENA**														
A.1	Sunspot Drawings	453A 40	454A 44	455A 64	456A 58	457A 50	458A 48	459A 44	460A 52	461A 58	462A 44	463A 40	464A 38	465A 42	
A.2aa	International Provisional Relative Sunspot Numbers RI	452A 11	453A 11	454A 9	455A 11	456A 9	457A 9	458A 9	459A 9	460A 11	461A 11	462A 11	463A 9	464A 9	465A 9
A.2c	American Relative Sunspot Numbers Ra	452A 11	453A 11	454A 9	455A 11	456A 9	457A 9	458A 9	459A 9	460A 11	461A 11	462A 11	463A 9	464A 9	465A 9
A.3a	Mt. Wilson Magnetograms	453A 40	454A 44	455A 64	456A 58	457A 50	458A 48	459A 44	460A 52	461A 58	462A 44	463A 40	464A 38	465A 42	
A.3b	Mt. Wilson Magnetic Characteristics of Sunspots	453A102	454A104	455A126	457A166	457A112	458A110	459A105	460A 83	461A 88	462A 75	463A 71	464A 66	465A 73	
A.3c	Kitt Peak Magnetograms	453A 40	454A 44	455A 64	456A 58	457A 50	458A 48	459A 44	460A 52	461A 58	462A 44	463A 40	464A 38	465A 42	
A.3d	Mean Solar Magnetic Field (Stanford)	452A 42	453A 32	454A 32	455A 56	456A 48	457A 42	458A 38	459A 36	460A 44	461A 52	462A 34	463A 30	464A 32	465A 34
A.3e	Stanford Magnetograms	453A 40	454A 44	455A 64	456A 58	457A 50	458A 48	459A 44	460A 52	461A 58	462A 44	463A 40	464A 38	465A 42	
A.4	H-alpha Filtergrams	453A 40	454A 44	455A 64	456A 58	457A 50	458A 48	459A 44	460A 52	461A 58	462A 44	463A 40	464A 38	465A 42	
A.5	Calcium Plage Drawings - Mt. Wilson or Big Bear	452A 50	453A 40	454A 44	455A 64	456A 58	457A 50	458A 48							
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A.5b	Mt. Wilson or Big Bear Daily Calcium Plage Indices	453A113	454A117	455A138	457A176	457A122	458A119								
A.6	H-alpha Synoptic Charts	453A 36	454A 36	456A 52	456A 53	457A 46	458A 42	459A 40	460A 47	461A 54	462A 36	463A 45	464A 34	465A 38	
A.6b	Synoptic Chart and Active Regions (Paris)	460B154	460B155	462B 92	463B 94	465B118									
A.6c	Stanford Solar Magnetic Field Synoptic Charts	453A 37	454A 38	455A 61	456A 55	458A 43	458A 44	460A 48	460A 49	461A 55	462A 38	463A 37	464A 35	465A 39	
A.6d	Kitt Peak Solar Magnetic Field Synoptic Charts	453A 38	454A 40	455A 62	456A 56	457A 48	458A 45	459A 42	460A 50	461A 56	462A 40	463A 38	464A 36	465A 40	
A.6e	Mass Ejections from the Sun	457B 73	458B 40	459B 37	460B113	461B 94	462B 52	463B 43	464B 36	465B 65					
A.7g	Helium Synoptic Maps (KPNO)	45A144	454A 42	455A 63	456A 56	457A 49	458A 47	459A 43	460A 51	461A 57	462A 42	463A 39	464A 37	465A 41	
A.7h	Coronal Line Emission (Sac Peak)	453A 40	454A 44	455A 64	456A 58	457A 50	458A 48	459A 44	460A 52	461A 58	462A 44	463A 40	464A 38	465A 42	
A.8aa	2800 MHz - Daily Values of Solar Flux (ARO-Ottawa)	452A 11	453A 11	454A 9	455A 11	456A 9	457A 9	458A 9	459A 9	460A 11	461A 11	462A 11	463A 9	464A 9	465A 9
A.8ac	2800 MHz - Daily Values of Adj. Solar Flux (ARO-Ottawa)	452A 11	453A 11	454A 9	455A 11	456A 9	457A 9	458A 9	459A 9	460A 11	461A 11	462A 11	463A 9	464A 9	465A 9
A.8g	Daily Values of Adjusted Solar Flux (AFGL)	452A 11	453A 11	454A 9	455A 11	456A 9	457A 9	458A 9	459A 9	460A 11	461A 11	462A 11	463A 9	464A 9	465A 9
A.10a	169 MHz - Interferometric Observations (Nancay)	452A 28	455A162	454A 21	455A 30			458A 25	459A 26	460A 28	461A 32	462A 24	463A 20	464A 20	465A 22
A.10c	21 cm East-West Solar Scans (Fleurs)	452A 31	---	---	455A 33	456A 30	457A 29	458A 28	459A 28	460A 31	461A 35	462A 27	463A 23	464A 23	465A 25
A.10d	43 cm East-West Solar Scans (Fleurs)	452A 32	---	---	---	456A 30	457A 30	458A 29	459A 29	460A 32	461A 36	462A 28	463A 24	464A 24	465A 26
A.10e	10.7 cm East-West Solar Scans (Ottawa-ARO)	452A 30	453A 25	454A 23	455A 32	456A 29	457A 28	458A 27	459A 27	460A 30	461A 34	462A 26	463A 22	464A 22	465A 24
A.10f	3 cm East-West Solar Scans (Toyokawa)	452A 29	453A 24	454A 22	455A 31	456A 28	457A 27	458A 26		460A 29	461A 33	462A 25	463A 21	464A 21	465A 23
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A.12e	Energetic Solar Particles (IMP H & J) 1980-81														
A.13d	Solar Wind from IPS Measurements	---	---	---	---	---	---	---	---	---	---	---	---	---	---
A.13e	Solar Plasma (IMP H & J)	457B 66	458B 34												
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A.17c	Inferred IP Magnetic Field	452A 40	453A 30	454A 30	455A 54	456A 46	457A 40	458A 36	459A 34	460A 42	461A 50	462A 32	463A 28	464A 30	465A 32
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B.52	Graphs of Transmission Frequency Range	453A144	454A140	455A158	456A156	457A162	458A148	459A156	460A128	461A132	462A128	463A106	464A 92	465A106	
B.53	Quality Figures Based on Frequency Ranges	453A143	454A142	455A157	456A158	457A161	458A150	459A158	460A130	461A131	462A130	463A106	464A 91	465A108	
C.	**FLARE-ASSOCIATED EVENTS**														
C.1a	Optical Observations Flares	452A 16	453A 16	454A 14	455A 16	456A 14	457A 14	458A 14	459A 14	460A 16	461A 16	462A 16	463A 14	464A 14	465A 14
C.1ba	Optical Observations Flares (Standardized Data) 1980			457B 76	459B 39	460B116	462B 56	463B 46	465B 68						
C.1d	Flare Patrol Observations	452A 27	453A 23	454A 20	455A 29	456A 27	457A 26	458A 24	459A 25	460A 27	461A 31	462A 23	463A 19	464A 19	465A 21
C.1d	Flare Patrol Observations 1980			457B115	459B 87	460B151	462B 89	463B 91	465B116						
C.1e	Flare Indices (by day) 1980			457B114	459B 86	460B150	462B 88	463B 90	465B115						
C.3	Solar Radio Waves - Outstanding Occurrences*	457B 4	458B 4	459B 4	460B 4	460B 4	462B 4	463B 4	464B 4	465B 4					
	Solar Radio Waves - Fixed Frequencies - Selected	452A 33	453A 26	454A 24	455A 34	456A 31	457A 31	458A 30	459A 30	460A 33	461A 37	462A 29	463A 25	464A 25	465A 27
C.4a	Solar Radio Spectral Obs. (Fort Davis)	453A118	454A121	455A143	456A124	457A130	458A125	459A131	460A106	461A109		---	---	---	
C.4d	Solar Radio Spectral Obs. (Culgoora)	455A163	455A170	455A143	456A124	457A130	458A125	459A131	460A106	461A109	462A 98	463A 92	464A 78	465A 89	
C.4e	Solar Radio Spectral Obs. (Weissenau)	453A118	454A121	455A143	456A124	457A130	458A125	459A131	460A106	461A109	462A 98	463A 92	464A 78	465A 89	
C.4f	Solar Radio Spectral Obs. (Sagamore Hill)	453A118	454A121	455A143	456A124	457A130	458A125	459A131	460A106	461A109	462A 98	463A 92	464A 78	465A 89	
C.4h	Solar Radio Spectral Obs. (Dwingeloo)														
C.4i	Solar Radio Spectral Obs. (Bleien)	454A145								461A109	462A 98	463A 92	464A 78	465A 89	
C.4k	Solar Radio Spectral Obs. (Learmonth)	453A118	454A121	455A143	456A124	457A130	458A125	459A131	460A106	461A109	462A 98	463A 92	464A 78	465A 89	
C.4l	Solar Radio Spectral Obs. (Palehua)	453A118	454A121	455A143	456A124	457A130	458A125	459A131	460A106	461A109	462A 98	463A 92	464A 78	465A 89	
C.5e	Solar X-ray (SMS/GOES) (graphs)	457B 67	458B 35	459B 31	461B 98	461B 88	462B 46	463B 38	464B 31	465B 60					
C.6	Sudden Ionospheric Disturbances	453A114	454A118	455A139	456A118	457A123	458A120	459A126	460A102	461A103	462A 92	463A 89	464A 75	465A 86	
D.	**GEOMAGNETIC AND MAGNETOSPHERIC PHENOMENA**														
D.1a	Geomagnetic Indices Kp, Kn, Ks, Km, Ap, aa, Cp	453A136	454A134	455A153	456A149	457A154	459A162	459A150	461A136	461A126	462A121	463A102	464A 87	465A101	
D.1ba	27-day Chart of Kp Indices	453A138	454A136	455A155	456A151	457A156	458A144	459A152	460A125	461A128	462A123	463A104	464A 89	465A103	
D.1c	27-day Chart of C9	462A124	462A124	462A124	462A124	462A124	462A124	462A124	462A124	462A124	462A124				
D.1d	Principal Magnetic Storms	453A141	454A139	455A156	456A154	457A159	458A147	459A153	460A126	461A129	462A125	463A105	464A 90	465A104	
D.1f	Sudden Commencement and Solar Flare Effects	453A142	456A160		456A155	457A160	459A164	459A155	460A127	461A130	462A127	464A 98	465A112	465A105	
D.1g	Equatorial Indices Dst	453A140	454A138	456A160	456A153	457A158	458A146	460A135	462A139	462A140	463A111	464A 97	465A111		
D.1h	Geomagnetic Substorm Log (Boulder)	452A 44	453A 34	454A 34	455A 58	456A 49	457A 43	458A 40	459A 38	460A 41	461A 49	462A 31	463A 31	464A 29	465A 35
F.	**COSMIC RAYS**														
F.1a	Cosmic Ray Neutron Counts (Deep River)	453A135	455A177	455A152	456A148	457A153	459A160	459A149	460A119	462A134	462A116	463A101	464A 83		
F.1b	Cosmic Ray Neutron Counts (Climax)	454A150	454A131	457A176	457A178	462A133	462A133	462A133	462A134	462A134	462A116				
F.1e	Cosmic Ray Neutron Counts (Alert)	453A135	455A177	455A152	456A148	457A153	459A160	459A149	460A119	462A134	462A116	463A101	464A 83		
F.1h	Cosmic Ray Neutron Counts (Thule)	453A135	454A131	455A152	456A148	457A153	458A143	459A149	460A119	461A123	462A116	463A101	464A 83	465A 97	
F.1i	Cosmic Ray Neutron Counts (Kiel)	453A135	454A131	457A178	457A178	457A153	458A143	459A149	460A119	461A123	462A116	463A101	464A 83	465A 97	
F.1j	Cosmic Ray Neutron Counts (Tokyo)	453A135	454A131	457A178	457A178	457A153	458A143	459A149	460A119	461A123	465A113	463A101	464A 83	465A 97	
F.1l	Cosmic Ray Neutron Counts (Huancayo)	454A150	457A176	457A178	462A133	462A133	462A133	462A133	462A134	462A134					
H.	**MISCELLANEOUS**														
H.60	IUWDS Alert Decisions	452A 5	453A 5	454A 4	455A 5	456A 4	457A 4	458A 4	459A 4	460A 5	461A 4	462A 5	463A 4	464A 4	465A 4

Notes:

"453A 40" listed under 1982 Mar means that the sunspot drawings for Mar 1982 were contained in Solar-Geophysical Data Number 452 - Part I, beginning on page 40.

A = Part I, B = Part II.

----- = no data available.
blank = data not yet received.

*Solar radio noise bursts observed at Athens, Learmonth, Manila, Palehua and Sagamore Hill during Aug 1979 through Oct 1980 appear in Solar-Geophysical Data, Number 461, Part II, pages 103-2135.

SGD 465 Part II (Comprehensive)

NOVEMBER 1982 DATA

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SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	260	ONDR	44	NS	0755.0E		386.0D	25.0			
	208	VORO	44	NS	2300.0E		300.0D				
	245	LEAR	43	NS	2305.3	0334.8	672.7D	54.0			QL=6 ST=3 TYP=1
	2000	TYKW	45	C	0331.0	0344.2	27.0	45.0	13.0		
	3750	TYKW	45	C	0332.0	0344.1	25.0	98.0	33.0		
	1000	TYKW	45	C	0332.0	0344.6	25.0	6.0	2.0		
	245	LEAR	47	GB	0333.6	0333.6	6.5	91.0			QL=6 ST=2 TYP=5
	9400	TYKW	45	C	0334.0	0344.0	20.0	60.0	33.0		
	2695	LEAR	47	GB	0334.0	0335.6	17.6	74.0			QL=6 ST=2 TYP=5
	17000	NOBE	7	C	0334.0	0336.1	13.0	31.0			0
	4995	LEAR	47	GB	0334.1	0335.8	19.2	76.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0334.1	0336.0	25.7	62.0			QL=6 ST=2 TYP=5
	200	HIRA			0335.0	0335.6		5.0			0
	200	HIRA	46	C	0335.0	0340.3	13.2	30.0	8.0		0
	15400	LEAR	4	S/F	0335.5	0336.1	11.8	28.0			QL=6 ST=2 TYP=3
	100	HIRA	46	C	0336.0	0337.3	3.3	2300.0	1200.0		WL
	100	HIRA	46	C	0340.7	0343.1	8.4	480.0	114.0		0
	1415	LEAR	4	S/F	0342.6	0344.5	2.9	17.0			QL=6 ST=2 TYP=3
	17000	NOBE	29	PBI	0347.0	0347.0	23.0	18.0			0
	9400	TYKW	29	PBI	0354.0		60.0	12.0	5.0		
	3750	TYKW	29	PBI	0357.0		90.0	7.0	3.0		
	2000	TYKW	29	PBI	0358.0		70.0	2.0	1.0		
	1000	TYKW	45	C	0411.8	0411.9	.8	1.5	.5		
	610	LEAR	8	S	0412.0	0412.1	.3	11.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0423.4	0423.6	.5	14.0	2.0		
	610	LEAR	8	S	0438.8	0439.0	.2	18.0			QL=6 ST=2 TYP=3
	1000	TYKW	8	S	0439.0	0439.1	.3	3.0	.7		
	1000	TYKW	45	C	0440.0	0440.2	.7	24.0	3.0		
	1000	TYKW	45	C	0527.3	0527.4	.5	23.0	5.0		
	2000	TYKW	5	S	0527.3	0527.5	.5	3.0	1.0		
	610	LEAR	8	S	0708.3	0708.5	.3	15.0			QL=6 ST=2 TYP=3
	536	ONDR	46	C	0821.0	0830.0	26.5D	266.0	22.0		
	536	ONDR	46	C	0907.5	0907.8	22.0	91.0	74.0		
	808	ONDR	8	S	0923.5	0923.5	.1	10.0			
	3100	CRIM	26	FAL	1020.0	1205.0		7.0			
	536	ONDR	8	S	1122.5	1122.5	.1	6.0			
	536	ONDR	42	SER	1147.5	1147.5	1.0	7.0			
	2650	DWIN	1	S	1156.0	1157.0	1.0	10.0	5.0		
	3000	POTS	3	S	1157.5	1158.0	2.0	8.0			
	650	GORK	2	S/F	1157.5	1158.0	1.3U	4.3			
	1470	POTS	4	S/F	1157.5	1158.4	1.3	20.0			
	2950	GORK	1	S	1157.6	1158.2	1.1	6.2	3.0		
	950	GORK	4	S/F	1157.8	1158.4	1.2	10.5			
	808	ONDR	1	S	1158.0	1158.5	1.0	9.0			
	536	ONDR	8	S	1238.0	1238.0	.1	8.0			
	536	ONDR	8	S	1300.5	1300.5	.1	8.0			
	9400	HUAN	2	S/F	1833.7	1834.5	1.7	2.7	1.3		0
	2800	OTTA	2	S/F	1847.0	1848.0	7.0	3.2	1.5		
	2800	OTTA	20	GRF	2005.0	2020.0	70.0	3.2	2.3		
	9400	HUAN	2	S/F	2006.2	2007.8	3.4	9.4	5.0		0
	2695	SGMR	47	GB	2014.1	2014.3	1.2	81.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2253.0	2253.1	.5	48.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	2344.8	2344.8	.2	18.0			QL=6 ST=2 TYP=3
02	410	LEAR	43	NS	0530.0	0546.1	180.0	22.0			QL=6 ST=2 TYP=1
	200	GORK	44	NS	0556.0E		418.0D		5.0		
	260	ONDR	44	NS	0758.0E		389.0D	25.0			
	245	PALE	43	NS	1657.0	0141.8	633.0D	100.0			QL=6 ST=2 TYP=1
	245	LEAR	44	NS	2156.0E	0141.6	634.0D	100.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2240.5	2320.1	379.5	11.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		4.0		
	9400	TYKW	21	GRF	0011.0	0019.0	50.0	4.0	2.0		
	3750	TYKW	21	GRF	0011.0	0020.0	60.0	2.0	1.0		
	9400	TYKW	5	S	0011.5	0012.7	2.5	11.0	2.5		
	3750	TYKW	5	S	0012.0	0012.7	2.0	10.0	3.0		
	2000	TYKW	5	S	0012.0	0012.8	2.0	11.0	1.0		
	2695	LEAR	8	S	0012.3	0012.8	1.5	11.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0012.5	0012.6	1.6	13.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0012.5	0012.6	1.6	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0014.0	0014.7	2.0	4.0	1.0		
	9400	TYKW	5	S	0014.4	0014.6	.5	5.0	2.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
02	410	LEAR	8	S	0122.8	0122.8	.2	11.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	0200.0	0220.0	45.0	2.0	1.0		
	9400	TYKW	5	S	0202.0	0202.8	3.0	5.0	2.0		
	3750	TYKW	5	S	0202.0	0202.9	5.0	4.0	1.0		
	1415	LEAR	8	S	0202.0	0202.1	1.3	16.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0202.5	0202.9	1.0	1.5	.5		
	3750	TYKW	5	S	0329.5	0330.3	2.5	2.0	.5		
	200	HIRA	42	SER	0341.3	0353.8	53.0	59.0			0
	3750	TYKW	5	S	0343.8	0344.1	1.0	1.5	.5		
	410	LEAR	47	GB	0459.3	0501.1	4.3	61.0			QL=6 ST=2 TYP=5
	3100	CRIM	26	FAL	0750.0	1200.0		15.0			
	536	ONDR	41	F	0912.0	0914.5	5.0	10.0			
	3000	POTS	40	F	0912.0	0914.8	4.5	13.0			
	1470	POTS	40	F	0912.0	0914.9	4.5	27.0			
	5200	BERN	4	S/F	0912.5	0914.6	4.0	26.0			
	11800	BERN	3	S	0912.5	0914.6	4.0	29.0			
	9100	GORK	4	S/F	0912.5	0914.6	5.9	35.0			
	8400	BERN	3	S	0912.5	0914.6	4.0	43.0			
	3100	BERN	4	S/F	0912.5	0915.8	4.0	17.0			
	650	GORK	41	F	0912.8	0912.8	3.6	17.0			
	650	GORK			0912.8	0914.7		2.6			
	950	GORK	4	S/F	0913.0	0914.5	3.2	43.0			
	2650	DWIN	2	S/F	0914.0	0915.0	2.0	15.0	5.0		
	2950	GORK	2	S/F	0914.2	0914.7	2.5	9.6			
	4995	LEAR	8	S	0914.3	0914.6	1.0	19.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0914.3	0914.6	1.2	29.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0914.5	0914.6	1.0	19.0			QL=6 ST=2 TYP=3
	1415	LEAR	47	GB	0914.5	0914.6	1.1	50.0			QL=6 ST=2 TYP=5
	9500	POTS	3	S	0914.5	0915.0	3.0	28.0			
	9400	HUAN	20	GRF	1219.0	1222.2	10.4	3.4	2.1		0
	2800	OTTA	29	PBI	1706.0	1706.0	8.0	14.4	5.0		
	2800	OTTA	27A	RF	1730.0		195.0	2.8	2.6		
	2800	OTTA	24	R	1730.0	1735.0	5.0	2.8	1.4		
	2800	OTTA	24P	R	1735.0		175.0	2.8			
	2800	OTTA	1	S	1735.0	1737.0	4.0	2.4	1.2		
	2800	OTTA	26	FAL	2030.0	2045.0	15.0	-2.8	-1.4		
	2695	PENT	2	S/F	2201.9	2203.0	3.0	2.8	1.4		
	410	LEAR	8	S	2310.5	2310.6	.1	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2310.5	2310.6	.1	18.0			QL=6 ST=2 TYP=3
03	200	GORK	44	NS	0512.0E		399.0D		5.0		
	260	ONDR	44	NS	0759.0E		326.0D	24.0			
	9400	TYKW	21	GRF	0048.0	0101.0	40.0	3.0	1.5		
	9400	TYKW	45	C	0048.5	0050.5	8.0	12.0	2.0		
	17000	NOBE	1	S	0048.8	0049.3	4.0	22.0			R
	8800	LEAR	4	S/F	0048.8	0050.3	2.8	11.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0048.8	0050.3	5.5	20.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0049.0	0049.3	1.0	3.0	1.0		
	245	PALE	8	S	0322.3	0322.5	.5	33.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	0349.0	0350.2	3.0	29.0	10.0		
	2000	TYKW	21	GRF	0349.0	0359.0	35.0	2.0	1.0		
	3750	TYKW	21	GRF	0349.0	0400.0	40.0	3.0	1.5		
	9395	PEKG	3	S	0349.0	0350.4	4.0	28.9	6.0		
	2840	PEKG	3	S	0349.0	0350.5	4.0	15.2	5.9		
	15400	LEAR	8	S	0349.3	0350.1	2.0	35.0			QL=6 ST=2 TYP=3
	17000	NOBE	2	S/F	0349.5	0350.2	2.5	42.0			L
	2000	TYKW	45	C	0349.5	0350.5	2.5	3.0	.7		
	8800	LEAR	8	S	0349.6	0350.3	2.0	32.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0350.0	0350.3	2.5	14.0	3.0		
	1415	LEAR	8	S	0350.0	0350.1	.1	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0350.1	0350.3	1.0	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0350.1	0350.3	1.0	16.0			QL=6 ST=2 TYP=3
	9400	TYKW	30	PBI	0352.0		40.0	4.0	2.0		
	9400	TYKW	5	S	0429.0	0429.4	1.0	8.0	2.0		
	15400	LEAR	8	S	0626.3	0626.3	1.0	18.0			QL=6 ST=2 TYP=3
	9100	GORK	2	S/F	0709.7	0710.9	4.8	15.0			
	650	GORK	20	GRF	0709.8	0710.5	9.6	1.5			
	2000	TYKW	5	S	0710.0	0710.6	2.0	8.0	2.0		
	1000	TYKW	5	S	0710.0	0710.6	2.0	4.5	1.5		INTERFERENCE
	950	GORK	20	GRF	0710.3	0710.5	18.0	3.0			
	8800	LEAR	8	S	0710.3	0710.8	1.5	17.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
03	15400	LEAR	8	S	0710.8	0710.8	1.0	17.0			QL=6 ST=2 TYP=3
	536	ONDR	41	F	1007.0	1008.0	6.0	6.0			
	3100	CRIM	26	FAL	1020.0	1200.0		13.0			
	536	ONDR	8	S	1142.0	1142.0	.1	4.0			
	410	LEAR	47	GB	2340.0	2340.8	.8	50.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	2340.1	2340.8	.9	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2357.5	2357.6	.1	19.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2357.5	2357.6	.1	30.0			QL=6 ST=2 TYP=3
04	260	ONDR	43	NS	1200.0		120.0D	25.0			
	2000	TYKW	5	S	0240.0	0242.0	8.0	1.5	.5		
	3750	TYKW	20	GRF	0240.0	0243.0	4.0	1.5	.5		
	610	LEAR	8	S	0537.5	0537.6	.8	8.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0538.1	0538.3	.4	9.0			QL=6 ST=2 TYP=3
	100	HIRA	42	SER	0538.2	0542.3	7.7	2700.0			WL
	245	LEAR	47	GB	0538.3	0538.3	1.0	79.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0542.1	0542.8	1.5	13.0			QL=6 ST=2 TYP=3
	200	HIRA	46	C	0542.3	0542.6	.8	89.0	54.0		0
	245	LEAR	47	GB	0542.3	0542.6	1.3	54.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0553.1	0553.1	.2	9.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0553.1	0553.1	.2	13.0			QL=6 ST=2 TYP=3
	3100	CRIM	26	FAL	0740.0	1200.0		19.0			
	536	ONDR	8	S	1218.5	1218.5	.1	4.0			
	536	ONDR	8		1252.5	1252.5	.1	4.0			
	536	ONDR	8	S	1341.3	1341.3	.1	4.0			
	127	TORN	7	C	1353.4	1354.2	1.2	50.0	30.0		
	2800	OTTA	27	RF	1430.0		105.0	3.0	2.7		
	2800	OTTA	24	R	1430.0	1445.0	15.0	3.0	1.5		
	2800	OTTA	24P	R	1445.0		85.0	3.0			
	2800	OTTA	26	FAL	1610.0	1615.0	5.0	3.0	1.5		
	2800	OTTA	240	R	1645.0	1700.0	15.0	3.2	1.6		
	245	PALE	8	S	1834.1	1834.1	.4	36.0			QL=6 ST=2 TYP=3
	2800	OTTA	8	S	1943.8	1944.2	.8	2.0	1.0		
	245	LEAR	8	S	2240.5	2240.6	.3	18.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2300.6	2300.8	.2	18.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2305.8	2306.0	.3	16.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2324.8	2324.8	.2	16.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2330.6	2330.6	.2	15.0			QL=6 ST=2 TYP=3
05	245	LEAR	8	S	0020.8	0020.8	2.0	20.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0254.8	0255.0	.3	46.0			QL=6 ST=2 TYP=3
	245	PALE	4	S/F	0255.1	0255.1	4.0	41.0			QL=5 ST=2 TYP=3
	100	HIRA	45	C	0402.0	0402.2	2.0	270.0	73.0		0
	410	LEAR	8	S	0522.1	0522.3	.5	18.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	0741.1	0741.3	.9	31.0			QL=2 ST=2 TYP=3
	245	LEAR	47	GB	0951.3	0951.3	1.2	57.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0954.5	0954.8	.8	16.0			QL=6 ST=2 TYP=3
	260	ONDR	41	F	1040.0	1051.0	36.0	51.0			
	536	ONDR	8	S	1225.5	1225.5	.1	4.0			
	536	ONDR	8	S	1246.0	1246.0	.1	3.0			
	536	ONDR	8	S	1312.5	1312.5	.1	6.0			
	536	ONDR	8	S	1337.0	1337.0	.1	8.0			
	245	PALE	8	S	2011.1	2011.1	.4	31.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2011.1	2011.1	.5	27.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	2305.0	2305.4	1.0	9.0	2.0		
06	245	LEAR	43	NS	2258.8	2317.5	114.8	22.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0020.3	0020.3	.3	20.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0020.3	0020.3	.3	26.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0023.8	0024.1	1.0	18.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	0023.8	0024.1	.5	52.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0024.1	0024.1	.2	3.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0053.5	0053.7	.5	11.0	3.0		
	3750	TYKW	45	C	0054.0	0054.3	1.0	4.0	1.0		
	2000	TYKW	45	C	0054.0	0054.4	1.0	20.0	3.0		
	1000	TYKW	8	S	0054.1	0054.2	.3	8.0	2.0		
	3750	TYKW	20	GRF	0140.0	0205.0	70.0	2.0	1.0		
	9400	TYKW	5	S	0235.0	0235.1	.8	5.0	1.5		
	9400	TYKW	5	S	0429.4	0429.6	.5	9.0	2.0		
	245	LEAR	8	S	0500.1	0500.3	.7	13.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0627.8	0637.8	10.2	11.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
06	410	LEAR	8	S	0637.8	0637.8	.2	11.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0647.6	0647.6	.2	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0647.6	0647.6	.2	3.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0647.6	0647.6	.2	5.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0709.3	0709.3	.2	7.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0725.1	0725.3	.2	7.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0729.1	0729.1	.2	16.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0729.1	0729.1	.2	10.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0729.1	0729.1	.2	6.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0808.5	0808.6	.1	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0808.5	0808.6	.1	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0846.8	0847.0	.3	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0846.8	0847.0	.3	4.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0846.8	0847.0	.3	2.0			QL=6 ST=2 TYP=3
	260	ONDR	1	S	0857.5	0858.0	1.0	2.0			
	260	ONDR	2	S/F	0901.5	0902.0	1.0	2.0			
	410	LEAR	47	GB	0907.8	0908.0	.3	96.0			QL=6 ST=2 TYP=5
	808	ONDR	8	S	1245.5	1245.8	.5	10.0			
	245	PALE	47	GB	1922.1	1922.3	.5	210.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2222.6	2222.8	.2	1.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2222.6	2222.8	.2	19.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2237.8	2238.0	.3	1.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2237.8	2238.0	.3	13.0			QL=6 ST=2 TYP=3
07	245	LEAR	43	NS	0433.0	0456.1	143.0	7.0			QL=6 ST=2 TYP=1
	260	ONDR	43	NS	1022.0		213.0D	6.0			
	245	LEAR	43	NS	2322.5	2336.6	213.5	92.0			QL=6 ST=2 TYP=1
	245	PALE	47	GB	0003.5	0003.6	.3	73.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0606.6	0606.6	.2	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0606.6	0606.6	.2	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0649.3	0649.5	.3	4.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0649.3	0649.5	.3	6.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0649.3	0649.5	.3	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0707.3	0707.5	.3	13.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0707.3	0707.5	.3	4.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0730.3	0730.5	.3	7.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0730.3	0730.5	.3	4.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0730.3	0730.5	.3	13.0			QL=6 ST=2 TYP=3
	9400	HUAN	20	GRF	1707.8	1714.5	6.7	4.1	2.4		0
	245	LEAR	8	S	2236.6	2236.8	.2	22.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2236.6	2236.8	.2	6.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2313.1	2313.3	.2	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2313.1	2313.3	.2	5.0			QL=6 ST=2 TYP=3
	208	VORO	40	F	2320.0	2335.0	22.0	36.0			
08	200	GORK	43	NS	0738.0		241.0D		5.0		
	260	ONDR	44	NS	0754.0E		435.0D				
	245	PALE	43	NS	1657.0	0220.6	628.0D	100.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2106.0E	0152.0	627.0D	60.0	10.0		0
	245	LEAR	43	NS	2153.0	0255.1	749.0D	189.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		9.0		
	410	LEAR	8	S	0016.1	0016.1	.2	15.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0016.1	0016.1	.2	13.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	0407.0	0407.1	.1	59.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0407.0	0407.1	.1	28.0			QL=6 ST=2 TYP=3
	200	HIRA	46	C	0445.1	0445.5	1.0	47.0	26.0		0
	245	LEAR	47	GB	0445.6	0446.0	1.0	130.0			QL=6 ST=2 TYP=5
	200	HIRA	8	S	0449.6	0449.6	.3	82.0			0
	1000	TYKW	45	C	0449.6	0449.8	1.0	5.0	1.5		
	410	LEAR	8	S	0546.3	0546.5	.3	19.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0742.3	0742.5	.3	22.0			QL=6 ST=2 TYP=3
	1470	POTS	1	S	0745.0	0745.6	2.2	4.0			
	6100	KISV	2	S/F	0745.1	0745.3	1.0	16.0			
	4995	LEAR	8	S	0745.1	0745.3	1.0	9.0			QL=6 ST=2 TYP=3
	650	GORK	2	S/F	0745.1	0745.5	.7	1.0			
	2695	LEAR	8	S	0745.1	0745.6	1.2	7.0			QL=6 ST=2 TYP=3
	950	GORK	1	S	0745.2	0745.6	1.0	5.0			
	410	LEAR	8	S	0745.3	0745.3	.2	20.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0745.3	0745.3	1.0	13.0			QL=6 ST=2 TYP=3
	9100	GORK	1	S	0745.3	0745.4	.6	13.0	6.5		
	2950	GORK	1	S	0745.3	0745.5	.9	3.6	1.8		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1982

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m² Hz)	Flux Density Mean (10^{-22} W/m² Hz)	Int	Remarks
08	9500	POTS	1 S	0745.5	0745.6	1.0	7.0			
	3000	POTS	1 S	0745.5	0745.9	1.0	5.0			
	410	LEAR	8 S	0820.1	0820.3	.2	11.0			QL=6 ST=2 TYP=3
	650	GORK	21 GRF	0952.3		32.0	1.0			
	950	GORK	21 GRF	1003.3	1015.0	24.0	3.0			
	536	ONDR	7 C	1015.0	1015.0	1.0	43.0			
	650	GORK	41 F	1015.2	1015.4	3.2	24.0			
	6100	KISV		1015.2	1015.6		17.0			
	6100	KISV	45 C	1015.2	1018.0	5.0	5.0			
	650	GORK		1015.2	1018.1		17.0			
	5200	BERN	3 S	1015.2	1018.3	3.0	42.0			
	3100	BERN	3 S	1015.2	1018.3	3.0	27.0			
	610	LEAR	47 GB	1015.3	1015.3	1.0	54.0			QL=6 ST=2 TYP=5
	950	GORK	41 F	1015.3	1015.4	4.0	8.0			
	9100	GORK	41 F	1015.3	1015.5	6.7D	7.7			
	2950	GORK	21 GRF	1015.3	1015.7	17.8	4.8	2.4		
	950	GORK		1015.3	1016.7		5.0			
	9100	GORK		1015.3	1018.3		26.0			
	950	GORK		1015.3	1018.6		10.0			
	808	ONDR	40 F	1015.5	1019.0	5.0	2.0			
	8400	BERN	3 S	1017.5	1018.3	3.0	28.0			
	2650	DWIN	1 S	1018.0	1018.0	2.0	15.0	10.0		
	9500	POTS	3 S	1018.0	1018.3	1.5	17.0			
	2950	GORK	3 S	1018.0	1018.3	1.8	15.7	8.0		
	3000	POTS	3 S	1018.0	1018.4	2.0	19.0			
	1470	POTS	1 S	1018.0	1018.4	2.0	5.0			
	536	ONDR	41 F	1202.0	1202.0	2.0	13.0			
	808	ONDR	41 F	1214.0	1219.5	6.0	32.0			
	536	ONDR	41 F	1218.0E	1221.0	12.0D	18.0			
	536	ONDR	41 F	1252.0	1256.5	7.0	17.0			
	2695	SGMR	47 GB	1717.8	1718.1	2.3	78.0			QL=6 ST=2 TYP=5
	2800	OTTA	27A RF	1810.0		200.0	2.4	2.2		
	2800	OTTA	24 R	1810.0	1835.0	25.0	2.4			
	2800	OTTA	24P R	1835.0		165.0	2.4			
	245	PALE	8 S	1922.1	1922.1	.2	31.0			QL=6 ST=2 TYP=3
	2800	OTTA	20 GRF	2047.0	2050.0	15.0	15.0	0.8		
	2800	OTTA	26 FAL	2120.0	2130.0	10.0	-2.4	-1.5		
	2695	PENT	20 GRF	2150.0	2210.0	45.0	4.2	2.2		
	410	LEAR	8 S	2318.3	2318.5	.3	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8 S	2325.8	2325.8	.2	11.0			QL=6 ST=2 TYP=3
09	200	GORK	44 NS	0515.0E		400.0D	5.0			
	260	ONDR	44 NS	0756.0E		371.0D	131.0			
	410	PALE	43 NS	1702.0	2001.8	623.0D	39.0			QL=6 ST=2 TYP=1
	245	PALE	43 NS	1702.0	2126.0	623.0D	219.0			QL=6 ST=2 TYP=1
	1000	TYKW		0047.0	0103.2		11.0			
	1000	TYKW	45 C	0047.0	0110.4	65.0	12.0	3.0		
	3750	TYKW	21 GRF	0048.0	0210.0	240.0	8.0	4.0		
	2000	TYKW	21 GRF	0048.0	0210.0	200.0	2.0	1.0		
	3750	TYKW	5 S	0050.0	0051.0	3.5	2.0	1.0		
	3750	TYKW	45 C	0054.0	0105.7	20.0	17.0	4.0		
	9400	TYKW	45 C	0056.0	0057.2	3.0	8.0	3.0		RAIN
	9400	TYKW	30 PBI	0059.0		18.0	3.0	1.5		
	9400	TYKW	45 C	0102.0	0105.6	12.0	25.0	6.0		
	2000	TYKW	45 C	0102.5	0105.8	6.5	7.0	2.0		
	500	HIRA	7 C	0102.6	0102.7	.7	7.0	4.0		0
	500	HIRA	7 C	0105.0	0105.4	1.0	15.0	5.0		0
	500	HIRA	20 GRF	0107.4	0116.0	33.0	6.0	3.0		0
	2000	TYKW	5 S	0109.5	0110.3	2.5	1.5	.5		
	2000	TYKW	45 C	0115.0	0124.6	16.0	5.0	2.0		
	3750	TYKW	5 S	0120.0	0120.8	1.5	3.0	1.0		
	3750	TYKW	5 S	0123.0	0127.3	8.0	2.5	1.5		
	9400	TYKW	21 GRF	0123.0	0153.0	160.0	10.0	5.0		
	3750	TYKW	5 S	0135.7	0136.1	1.0	1.5	.5		
	2000	TYKW	5 S	0136.0	0139.0	8.0	1.0	.5		
	3750	TYKW	5 S	0138.0	0141.0	8.0	1.5	.7		
	17000	NOBE	20 GRF	0144.0	0156.0	30.0D	9.0			0
	3750	TYKW	5 S	0150.0	0156.0	15.0	3.0	1.0		
	9400	TYKW	20 GRF	0154.0	0156.0	30.0	4.0	2.0		
	1000	TYKW	5 S	0154.5	0155.6	3.0	3.0	1.0		
	2000	TYKW	5 S	0155.0	0156.0	7.0	1.0	.3		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
09	204	IZMI	5	S	0846.3	0846.4	.2	140.0	100.0		
	204	IZMI	4	S/F	1028.5	1029.0	1.0	65.0	20.0		
	536	ONDR	8	S	1202.5	1202.5	.1	27.0			
	536	ONDR	8	S	1225.0	1225.0	.1	27.0			
	2800	OTTA	8	S	1556.0	1556.3	.8	2.0	1.0		
10	245	LEAR	43	NS	0233.6	0739.8	469.4D	75.0			QL=6 ST=2 TYP=1
	208	VORO	43	NS	0241.0	0254.0	24.0	9.0			
	260	ONDR	44	NS	0755.0E		389.0D	74.0			
	200	GORK	43	NS	0940.0		134.0D		5.0		
	127	TORN	43	NS	1242.0		118.0				V1,DISTURBED
	245	SGMR	43	NS	1600.0	1708.5	303.0D	169.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1750.0	1829.1	575.0D	83.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2152.0	0628.3	751.0D	119.0			QL=6 ST=2 TYP=1
	3750	TYKW	5	S	0022.0	0022.6	1.0	4.0	2.0		
	3750	TYKW	29	PBI	0023.0		40.0	2.0	1.0		
	2000	TYKW	21	GRF	0213.0	0224.0	240.0	3.0	1.5		
	3750	TYKW	21	GRF	0213.0	0250.0	250.0	5.0	2.5		
	1000	TYKW	45	C	0216.0	0217.3	2.0	7.0	1.5		
	1000	TYKW	5	S	0222.0	0222.8	2.0	4.0	1.0		
	410	LEAR	8	S	0229.8	0230.0	.3	31.0			QL=6 ST=2 TYP=3
	2000	TYKW	21	GRF	0345.0	0400.0	145.0	2.0	1.0		
	3750	TYKW	21	GRF	0347.0	0404.0	150.0	6.0	3.0		
	9395	PEKG	20	GRF	0348.0	0400.6	36.0	7.0	5.5		
	9400	TYKW	20	GRF	0353.0U	0403.0	40.0U	5.0U	3.0U		RAIN
	2000	TYKW	20	GRF	0425.0	0440.0	60.0	1.0	.5		
	3750	TYKW	21	GRF	0430.0	0502.0	105.0	4.0	2.0		
	3750	TYKW	20	GRF	0520.0	0550.0	50.0	4.0	2.0		
	9100	GORK	1	S	0545.7	0546.5	1.9	28.0			
	9400	TYKW	5	S	0553.5	0553.9	1.5	6.0	2.0		
	9395	PEKG	3	S	0600.0	0601.6	3.0	47.7	8.6		
	2840	PEKG	3	S	0600.0	0601.6	3.0	38.0	6.4		
	6100	KISV	4	S/F	0600.7	0601.5	3.0	20.0			
	9400	TYKW	5	S	0600.7	0601.5	2.5	26.0	6.0		
	2000	TYKW	5	S	0600.7	0601.5	4.0	76.0	10.0		
	650	GORK	4	S/F	0600.8	0601.3	1.2	51.0			
	15400	LEAR	8	S	0600.8	0601.8	2.0	28.0			QL=6 ST=2 TYP=3
	3100	CRIM	3	S	0601.0	0601.4	2.0	37.0	12.0		
	2950	GORK	3	S	0601.0	0601.5	1.9	36.0	18.0		
	1415	ATHN	47	GB	0601.0	0601.5	1.8	169.0			QL=6 ST=2 TYP=5
	8800	ATHN	8	S	0601.0	0601.5	1.0	28.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	0601.1	0601.3	1.2	130.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0601.1	0601.3	1.0	28.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0601.1	0601.5	1.4	71.0			QL=6 ST=2 TYP=5
	1415	LEAR	47	GB	0601.1	0601.5	1.5	210.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0601.1	0601.5	1.4	27.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0601.1	0601.5	1.5	38.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	0601.1	0601.6	2.0	28.0			QL=2 ST=2 TYP=3
	4995	LEAR	8	S	0601.3	0601.3	1.2	23.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0601.3	0601.8	2.2	32.0			QL=2 ST=2 TYP=3
	9400	TYKW	5	S	0633.0	0633.2	.5	11.0	4.0		
	410	LEAR	8	S	0732.1	0732.1	.2	22.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0828.0	0828.1	.1	18.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0828.0	0828.1	.1	32.0			QL=6 ST=2 TYP=3
	1470	POTS	45	C	0905.0	0912.0	12.0	260.0			
	950	GORK	4	S/F	0909.3	0911.1	6.7	27.0			
	1415	ATHN	49	GB	0910.0	0911.8	4.3	470.0			QL=6 ST=3 TYP=6
	1415	LEAR	49	GB	0910.0	0911.8	4.6	600.0			QL=6 ST=2 TYP=6
	8800	LEAR	8	S	0912.0	0912.1	1.1	20.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0912.0	0912.1	1.0	32.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0912.0	0912.1	1.0	13.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	1313.0	1313.1	.3	170.0	35.0		
	536	ONDR	8	S	1411.5	1411.5	.1	49.0			
	2800	OTTA	8	S	1448.0	1448.3	.6	4.2			
	2800	OTTA	42	SER	1448.0	1450.2	5.0	11.4			
	2800	OTTA	8	S	1450.0	1450.2	.8	11.4			
	2800	OTTA	1	S	1451.8	1452.3	1.2	2.0			
	9400	HUAN	20	GRF	1549.6	1609.3	62.6	5.3	2.9		0
	2800	OTTA	46F	C	1755.0	1803.0	30.0	33.0	18.8		
	9400	HUAN	4	S/F	1757.0	1801.7	8.5	55.8	27.1		L
	4995	SGMR	47	GB	1758.3	1801.8	34.0	73.0			QL=6 ST=2 TYP=5

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
10	8800	SGMR	47	GB	1758.3	1802.0	34.0	71.0			QL=6 ST=2 TYP=5
	2695	SGMR	4	S/F	1759.1	1802.8	28.5	37.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1759.3	1802.0	33.0	46.0			QL=6 ST=2 TYP=3
	1415	SGMR	4	S/F	1801.5	1802.6	3.5	22.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1805.5	1805.5	47.7	25.2	16.9		L
	610	SGMR	8	S	1811.1	1811.6	1.2	16.0			QL=6 ST=2 TYP=3
	2800	OTTA	29	PBI	1825.0	1825.0	150.0	15.4	5.2		
	9400	HUAN	2	S/F	1920.6	1921.6	2.0	9.3	6.1		0
	8800	PALE	8	S	1921.3	1921.6	.8	21.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1922.6	1922.6	12.5	4.0	2.4		0
	610	LEAR	8	S	2201.3	2201.3	.2	24.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2213.1	2213.3	.5	21.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2213.1	2213.3	.5	21.0			QL=6 ST=2 TYP=3
	200	HIRA	46	C	2258.1	2259.0	1.1	84.0	29.0		0
11	200	GORK	44	NS	0521.0E		350.0D		10.0		
	204	IZMI	43	NS	0700.0		300.0	62.0			
	260	ONDR	44	NS	0747.0E		310.0D	47.0			
	127	TORN	44	NS	1030.0E	1255.0	240.0D	200.0	1.0		V2
	245	SGMR	43	NS	1153.0	1916.8	549.0D	50.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1700.0	0159.6	625.0D	139.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		9.0		
	200	HIRA	43	NS	2313.0	0428.0	480.0D	50.0	30.0		WL
	410	LEAR	47	GB	0028.0	0028.1	1.1	68.0			QL=6 ST=2 TYP=5
	3750	TYKW	20	GRF	0210.0	0225.0	40.0	3.0	1.5		
	9400	TYKW	20	GRF	0216.0	0227.0	35.0	11.0	6.0		
	9395	PEKG	20	GRF	0216.0	0221.0	20.0	6.5	1.9		
	9400	TYKW	5	S	0630.0	0630.3	2.0	21.0	6.0		
	9100	GORK	2	S/F	0630.0	0630.2	1.0	21.0	10.0		
	9395	PEKG	3	S	0630.0	0630.2	3.0	45.2	17.3		
	6100	KISV	2	S/F	0630.0	0630.3	1.5	8.0			
	15400	LEAR	8	S	0630.1	0630.1	1.0	19.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0630.1	0630.1	1.0	19.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0637.4	0637.9	1.5	9.0	3.0		
	9400	TYKW	5	S	0641.0	0641.6	2.0	5.0	2.0		
	2000	TYKW	5	S	0641.0	0641.7	2.0	3.0	1.0		
	3750	TYKW	5	S	0641.0	0641.7	2.0	4.0	1.5		
	204	IZMI	4	S/F	0717.5	0718.0	1.2	170.0	120.0		
	9100	GORK	1	S	0810.4	0810.5	.6	5.2	2.5		
	245	LEAR	47	GB	0825.8	0826.0	.3	75.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0825.8	0826.0	.3	15.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	1200.5	1200.5	.2	140.0	25.0		
	9100	GORK	45	C	1200.5	1202.5	6.9	38.0			
	9100	GORK			1200.5	1206.3		25.0			
	536	ONDR	8	S	1228.5	1228.5	.1	6.0			
	2800	OTTA	240	R	1850.0	2015.0	85.0	8.2	3.8		
	2000	TYKW	20	GRF	2230.0	2250.0	120.0	5.0	2.5		
	3750	TYKW	21	GRF	2231.0	2251.0	120.0	12.0	6.0		
	9400	TYKW	21	GRF	2231.0U	2254.0	90.0U	12.0	6.0		INTERFERENCE
	8800	LEAR	4	S/F	2232.1	2234.1	2.9	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	2232.8	2234.1	2.2	16.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	2234.0	2235.6	1.6D	11.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	2334.0	2335.0	15.0	3.0	1.0		
	9400	TYKW	5	S	2338.5	2339.1	2.5	5.0	1.5		
12	100	HIRA	43	NS	0228.0	0358.0	260.0D	400.0	130.0		ML
	100	GORK	44	NS	0533.0E		387.0D		10.0		
	127	TORN	44	NS	0700.0E		520.0D		111.0		V1
	204	IZMI	43	NS	0700.0		300.0	29.0			
	200	GORK	44	NS	0748.0E		252.0D		10.0		
	260	ONDR	44	NS	0755.0E	1045.0	315.0D	30.0			
	245	SGMR	43	NS	1507.0	1620.0	261.0	50.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2113.0E	0551.0	615.0D	20.0	10.0		WL
	208	VORO	44	NS	2300.0E		300.0D		9.0		
	8800	PALE	20	GRF	0000.1	0004.8	14.0	29.0			QL=6 ST=2 TYP=2
	410	PALE	49	GB	0002.8	0004.6	2.3	600.0			QL=6 ST=2 TYP=6
	15400	PALE	4	S/F	0007.6	0009.6	6.5	33.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	0008.1	0009.1	1.2	13.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0100.0	0100.4	2.0	6.0	2.0		
	9400	TYKW	21	GRF	0128.0	0134.0	35.0	4.0	2.0		
	9400	TYKW	5	S	0129.0	0130.5	3.5	2.0	1.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
12	3750	TYKW	20	GRF	0129.0	0134.5	70.0	5.0	2.0D		
	245	LEAR	47	GB	0131.6	0133.1	1.7	98.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0132.8	0133.0	.5	93.0			QL=6 ST=2 TYP=5
	100	HIRA	46	C	0233.0	0234.4	2.7	580.0	240.0		WL
	3750	TYKW	5	S	0303.0E	0306.5	15.0D	2.0	1.0D		
	9400	TYKW	5	S	0325.0	0407.8	95.0	39.0	22.0		
	3750	TYKW	45	C	0329.0	0408.0	91.0	17.0	1.2		
	3750	TYKW			0329.0	0427.0		17.0			
	2000	TYKW			0331.0	0430.0		11.0			
	2000	TYKW	28	PRE	0331.0	0521.0	110.0	12.0	8.0		
	17000	NOBE	20	GRF	0334.7	0413.9	90.0	37.0			O
	8800	LEAR	20	GRF	0337.0	0407.5	76.0	36.0			QL=6 ST=2 TYP=2
	4995	LEAR	20	GRF	0337.0	0407.6	76.0	20.0			QL=6 ST=2 TYP=2
	15400	LEAR	20	GRF	0337.0	0414.6	76.0	40.0			QL=6 ST=2 TYP=2
	2695	LEAR	20	GRF	0337.0	0418.5	76.0	11.0			QL=6 ST=2 TYP=2
	1000	TYKW	28	PRE	0340.0	0515.0	95.0	6.0	3.0		
	1000	TYKW	45	C	0442.5	0443.2	2.0	3.0	1.0		
	1000	TYKW	45	C	0456.7	0457.2	1.5	6.0	1.5		
	1000	TYKW	45	C	0459.0	0500.4	3.0	12.0	2.0		
	3750	TYKW	30	PBI	0500.0		21.0	10.0	10.0		
	9400	TYKW	30	PBI	0500.0		21.0	15.0	13.0		
	1000	TYKW	45	C	0502.8	0503.2	1.0	13.0	3.0		
	1000	TYKW	45	C	0513.3	0514.0	1.0	8.0	1.5		
	1000	TYKW	45	C	0515.0	0547.3	45.0	485.0	60.0		
	610	LEAR	4	S/F	0518.6	0521.3	5.7	34.0			QL=6 ST=2 TYP=3
	2000	TYKW	47	GB	0521.0	0547.0	39.0	1150.0	90.0		
	3750	TYKW	45	C	0521.0	0547.4	39.0	105.0	32.0		
	9400	TYKW	45	C	0521.0	0547.4	39.0	76.0	25.0		
	500	HIRA	48	C	0521.0	0547.0	43.0	600.0	100.0		WR
	500	HIRA			0521.0	0552.9		250.0			MR
	200	HIRA	27	RF	0522.0	0547.0	96.0	150.0	50.0		WL
	100	HIRA	27	RF	0525.0	0600.0	120.0D	920.0	400.0		O
	950	GORK	47	GB	0530.0E	0547.2	29.0D	240.0			
	950	GORK			0530.0E	0553.2		155.0			
	650	GORK			0530.9E	0533.4		228.0			
	650	GORK	47	GB	0530.9E	0533.8	35.0D	126.0			
	650	GORK			0530.9E	0547.3		680.0			
	2840	PEKG	28	PRE	0532.0	0540.5	10.0	29.0	4.6		
	1415	MANI	47	GB	0533.0	0547.5	23.0	563.3	187.8		
	1415	ATHN	49	GB	0539.6	0547.6	21.5	760.0			QL=6 ST=2 TYP=6
	2695	ATHN	47	GB	0539.8	0547.5	22.7	280.0			QL=2 ST=3 TYP=5
	4995	ATHN	47	GB	0539.8	0548.0	15.2	78.0			QL=2 ST=2 TYP=5
	8800	ATHN	4	S/F	0540.1	0548.0	11.0	32.0			QL=6 ST=2 TYP=3
	2840	PEKG	45	C	0542.0	0547.5	155.0	436.0	125.0		
	9395	PEKG	45	C	0543.0	0547.5	14.0	48.4	12.5		
	4995	MANI	4	S/F	0546.1	0547.5	7.9	29.3	9.8		
	100	HIRA	45	C	0549.7	0550.0	1.0	9200.0	3050.0		WL
	100	GORK	41	F	0550.1	0550.3	11.3	1090.0			
	100	GORK			0550.1	0558.5		1900.0			
	2840	PEKG	29	PBI	0557.0		42.0	31.0	8.4		
	2000	TYKW	30	PBI	0600.0		75.0D	27.0	14.0D		
	3750	TYKW	30	PBI	0600.0		75.0	28.0	16.0		
	9400	TYKW	30	PBI	0600.0		80.0D	33.0	26.0D		
	1000	TYKW	30	PBI	0600.0		73.0D	12.0	7.0D		
	3100	CRIM	26	FAL	0600.0E	0940.0		8.0			
	9100	GORK	21	GRF	0601.0E	0921.0	240.0D	38.0			
	2950	GORK	23	GRF	0603.0E	0609.0	360.0D	28.0			
	2000	TYKW	45	C	0707.0	0707.8	3.0	5.0	2.0		
	1000	TYKW	45	C	0707.0	0707.9	3.0	4.0	2.0		
	3750	TYKW	45	C	0707.0	0707.9	3.0	8.0	3.0		
	9400	TYKW	45	C	0707.0	0708.9	3.0	19.0	6.0		
	4995	LEAR	8	S	0819.1	0819.5	1.2	5.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0819.1	0819.5	1.2	17.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0819.1	0819.6	1.2	10.0			QL=6 ST=2 TYP=3
	6100	KISV	2	S/F	0819.2	0819.4	1.0	5.0			
	9100	GORK	1	S	0819.3	0819.5	.8	20.0	10.0		
	3100	CRIM	21	GRF	0845.0	0904.0	45.0	6.0	2.0		
	9500	POTS	20	GRF	0846.0	0925.0	81.0	35.0			
	2695	LEAR	8	S	0857.1	0857.3	1.0	13.0			QL=6 ST=2 TYP=3
	1470	POTS	23	GRF	0901.0	0915.8	54.0	9.0			
	3000	POTS	23	GRF	0910.0	0925.8	59.0U	10.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m² Hz)	Flux Density Mean	Int	Remarks
12	1415	LEAR	8	S	0915.1	0915.8	1.2	13.0			QL=6 ST=2 TYP=3
	3100	CRIM	1	S	0922.0	0925.0	3.0	4.0	1.0		
	536	ONDR	2	S/F	0942.0	0942.0	1.5	4.0			
	234	POTS	8	S	1018.4	1018.7	.8	935.0	300.0		
	9100	GORK	1	S	1041.0	1042.3	2.5	25.0	12.0		
	6100	KISV	2	S/F	1041.3	1042.4	15.0	10.0			
	536	ONDR	41	F	1041.5	1041.5	.8	13.0			
	536	ONDR	8	S	1123.0	1123.0	.1	6.0			
	536	ONDR	8	S	1127.0	1127.0	.1	4.0			
	9400	HUAN	20	GRF	1321.8	1328.2	14.6	5.5	2.4		0
	2800	OTTA	2	S/F	1342.0	1343.0	4.0	9.0			
	2800	OTTA	23	GRF	1400.0	1438.0	180.0	34.0	11.4		
	8400	BERN	4	S/F	1405.0	1432.2	55.0D	201.0			
	11800	BERN	21	GRF	1405.0	1432.2	55.0D	201.0			
	3100	BERN	4	S/F	1405.0	1432.3	55.0D	104.0			
	5200	BERN	4	S/F	1405.0	1432.3	55.0D	250.0			
	15400	SGMR	4	S/F	1413.1	1413.1	3.7	21.0			QL=6 ST=2 TYP=3
	19600	BERN	21	GRF	1421.0	1432.6	40.0D	66.0			
	1415	ATHN	47	GB	1423.5	1432.1	20.3	189.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	1425.1	1432.3	18.5	150.0			QL=2 ST=2 TYP=5
	2695	ATHN	47	GB	1425.6	1431.3	17.4	75.0			QL=2 ST=2 TYP=5
	4995	SGMR	47	GB	1425.6	1432.1	17.5	200.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	1425.6	1432.3	18.2	160.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1425.8	1432.1	17.3	219.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1426.3	1432.3	16.8	139.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1428.8	1431.1	14.3	100.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1428.8	1432.1	14.3	360.0			QL=6 ST=2 TYP=5
	2800	OTTA	46F	C	1430.0	1431.3	7.5	85.0	10.9		
	610	SGMR	4	S/F	1431.5	1432.1	3.5	47.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1435.8	1436.1	1.3	29.0			QL=6 ST=2 TYP=3
	2800	OTTA	2	S/F	1439.2	1439.8	2.0	7.4	3.7		
	410	SGMR	8	S	1442.6	1443.0	.5	11.0			QL=6 ST=2 TYP=3
	8800	SGMR	20	GRF	1443.1	1443.1	26.9	59.0			QL=6 ST=2 TYP=2
	1415	SGMR	20	GRF	1443.1	1443.1	11.5	18.0			QL=6 ST=2 TYP=2
	15400	SGMR	47	GB	1443.1	1443.3	23.0	98.0			QL=6 ST=2 TYP=5
	4995	SGMR	20	GRF	1443.1	1443.3	32.2	41.0			QL=6 ST=2 TYP=2
	2695	SGMR	20	GRF	1443.1	1444.6	11.5	18.0			QL=6 ST=2 TYP=2
	610	SGMR	4	S/F	1443.1	1444.8	46.2	40.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1444.3	1445.0	44.2	13.0			QL=6 ST=2 TYP=3
	2800	OTTA	46F	C	1444.5	1447.6	6.0	26.0	9.4		
	245	SGMR	8	S	1506.3	1506.5	1.2	26.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	1545.3	1545.5	15.3	72.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1546.1	1547.5	15.2	34.0			QL=6 ST=2 TYP=5
	2800	OTTA	8	S	1548.7	1548.7	.1	7.2			
	410	SGMR	47	GB	1549.3	1551.3	11.0	58.0			QL=6 ST=2 TYP=5
	2695	SGMR	8	S	1555.3	1556.1	1.0	13.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	1606.0	1606.3	1.8	200.0			QL=6 ST=2 TYP=5
	2800	OTTA	20	GRF	1710.0	1750.0	95.0	4.6	2.3		
	2800	OTTA	21	GRF	1855.0	1925.0	130.0	8.4	4.0		
	2800	OTTA	1	S	1857.5	1858.0	1.0	2.6	1.3		
	245	PALE	4	S/F	2126.1	2128.5	4.9	40.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2126.5	2126.6	.5	41.0			QL=6 ST=2 TYP=3
	2695	PENT	20	GRF	2135.0	2150.0	30.0	3.0	1.5		
	3750	TYKW	20	GRF	2220.0	2240.0	50.0	3.0	1.5		
	245	LEAR	8	S	2234.1	2234.1	2.0	22.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2257.1	2257.1	.2	35.0			QL=6 ST=2 TYP=3
	2000	TYKW	21	GRF	2340.0	0115.0	340.0	8.0	4.0		
	3750	TYKW	21	GRF	2344.0	0102.0	315.0	16.0	8.0		
	1000	TYKW	21	GRF	2345.0	0125.0	330.0	5.0	2.5		
	3750	TYKW	21	GRF	2350.0	0009.0	30.0	6.0	3.0		
	3750	TYKW	5	S	2352.0	2352.7	5.0	7.0	2.0		
	9400	TYKW	28	PRE	2352.0	2352.8	7.0	9.0	3.0		
	8800	LEAR	8	S	2352.1	2352.8	1.7	10.0			QL=6 ST=2 TYP=3
	4995	PALE	8	S	2352.5	2352.6	.3	19.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	2352.5	2352.6	1.3	16.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2352.5	2352.6	.6	17.0			QL=6 ST=2 TYP=3
	17000	NOBE	20	GRF	2355.8	0011.4	70.0	18.0			0
	8800	PALE	8	S	2357.0	2357.1	.3	20.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	2357.1	2357.1	.2	310.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2357.1	2357.1	5.0	189.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	2357.1	2357.1	.2	360.0			QL=6 ST=3 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
12	410	LEAR	47	GB	2357.1	2357.1	.2	250.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	2359.0	0009.0	22.0	26.0	13.0D		
	8800	PALE	20	GRF	2359.1	0004.8	15.0	29.0			QL=6 ST=2 TYP=2
13	100	HIRA	43	NS	0250.0	0458.0	265.0D	250.0	120.0		ML
	610	LEAR	43	NS	0300.0	0317.0	91.3	50.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0300.0	0319.8	127.6	35.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0300.0	0346.8	445.0	189.0			QL=6 ST=2 TYP=1
	100	GORK	44	NS	0532.0E		360.0D		10.0		
	200	GORK	44	NS	0537.0E		360.0D		10.0		
	127	TORN	44	NS	0650.0E	1003.4	530.0D	300.0	22.0		V1
	260	ONDR	44	NS	0750.0E		380.0D	34.0			
	245	PALE	43	NS	1708.0	0311.1	616.0D	260.0			QL=6 ST=2 TYP=1
	100	HIRA	44	NS	2113.0E	0525.0	615.0D	280.0	95.0		ML
	200	HIRA	44	NS	2113.0E	2324.0	615.0D	80.0	40.0		ML
	245	LEAR	43	NS	2151.0	0311.1	754.0D	219.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		22.0		
	8800	PALE	20	GRF	0000.1	0004.8		29.0			QL=6 ST=3 TYP=2
	8800	LEAR	4	S/F	0002.0	0011.0	15.5	20.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0002.1	0011.0	15.4	13.0			QL=6 ST=3 TYP=3
	500	HIRA	8	S	0002.5	0002.5	.6	200.0			WR
	2000	TYKW	5	S	0002.5	0002.9	1.5	4.0	1.5		
	410	LEAR	49	GB	0002.8	0004.6	3.0	550.0			QL=6 ST=2 TYP=6
	610	LEAR	47	GB	0002.8	0004.6	2.8	219.0			QL=6 ST=2 TYP=5
	410	PALE	49	GB	0002.8	0004.6		600.0			QL=6 ST=3 TYP=6
	500	HIRA	8	S	0004.3	0004.4	.4	300.0			WR
	1000	TYKW	5	S	0004.5	0004.8	1.0	3.0	1.0		
	15400	LEAR	4	S/F	0006.6	0011.0	10.9	34.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0007.6	0009.6		33.0			QL=6 ST=3 TYP=3
	2000	TYKW	45	C	0008.0E	0009.7	5.0D	12.0	3.0D		
	4995	PALE	8	S	0008.1	0009.1		13.0			QL=6 ST=3 TYP=3
	9400	TYKW	30	PBI	0021.0		120.0	5.0	2.5		
	2000	TYKW	5	S	0021.0	0021.2	.5	2.0	.7		
	245	PALE	49	GB	0021.0	0021.1	.6	790.0			QL=6 ST=2 TYP=6
	410	PALE	47	GB	0021.0	0021.1	.5	420.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0021.0	0021.1	1.1	370.0			QL=6 ST=2 TYP=5
	245	LEAR	49	GB	0021.0	0021.1	1.3	700.0			QL=6 ST=2 TYP=6
	9400	TYKW	21	GRF	0025.0	0111.0	115.0	14.0	7.0		
	9400	TYKW	45	C	0032.5	0034.1	2.5	8.0	2.0		
	410	LEAR	49	GB	0038.0	0038.1	3.5	730.0			QL=6 ST=2 TYP=6
	410	PALE	49	GB	0038.0	0038.1	.5	960.0			QL=6 ST=2 TYP=6
	245	PALE	47	GB	0038.0	0038.3	.8	360.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0038.0	0038.3	.8	320.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	0056.0	0056.6	2.0	3.0	1.0		
	4995	PALE	8	S	0104.8	0106.0	1.3	11.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0106.0	0107.3	1.5	19.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0107.0	0107.4	1.0	7.0	1.5		
	245	LEAR	8	S	0107.0	0107.1	.1	40.0			QL=6 ST=2 TYP=3
	17000	NOBE	20	GRF	0143.0	0233.1	78.0	23.0			O
	410	LEAR	47	GB	0145.3	0145.8	3.3	55.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0145.6	0145.8	.5	90.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	0145.6	0147.0	2.5	13.0	1.5		
	245	LEAR	47	GB	0145.8	0147.5	2.7	169.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	0146.8	0147.0	.5	16.0	4.0		
	245	PALE	47	GB	0147.3	0147.5	.3	200.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	0157.2	0158.3	1.5	4.0	.5		
	1415	LEAR	8	S	0158.1	0158.1	1.0	17.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0203.0	0206.0	12.0	4.0	2.0		
	1000	TYKW	42	SER	0207.8	0208.0	4.4	3.0	.3		
	2000	TYKW	5	S	0211.5	0211.8	1.0	2.0	.5		
	410	LEAR	47	GB	0211.6	0211.6	1.0	290.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	0211.6	0211.8	.2	20.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0211.6	0211.8	.2	45.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0218.6	0219.1	.7	60.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0218.8	0219.1	.5	8.0			QL=6 ST=2 TYP=3
	1000	TYKW	8	S	0222.3	0222.4	.3	24.0	5.0		
	1000	TYKW	45	C	0226.5	0227.8	2.0	133.0	12.0		
	3750	TYKW	5	S	0227.0	0227.7	1.5	4.0	1.0		
	2000	TYKW	5	S	0227.2	0227.7	1.5	1.5	.5		
	410	LEAR	8	S	0227.3	0227.6	1.0	48.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0227.5	0227.7	.5	5.0	1.5		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m² Hz)	Flux Density Mean	Int	Remarks
13	610	LEAR	8	S	0227.6	0227.6	.2	25.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	0229.0	0236.2	13.0	70.0	16.0		
	1415	LEAR	47	GB	0231.8	0232.3	9.7	100.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	0232.0	0232.4	12.0	190.0	16.0		
	3750	TYKW	45	C	0232.0	0236.6	15.0	85.0	25.0		
	2000	TYKW	45	C	0232.0	0236.6	12.0	43.0	15.0		
	1415	PALE	47	GB	0232.0	0233.3	3.5	110.0			QL=6 ST=2 TYP=5
	500	HIRA	46	C	0232.0	0235.0	7.0	40.0	14.0		ML
	245	LEAR	49	GB	0232.0	0236.3	6.1	790.0			QL=6 ST=2 TYP=6
	2695	LEAR	47	GB	0232.0	0236.6	11.1	80.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0232.3	0232.3	1.0	290.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	0232.3	0232.3	.7	390.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0232.3	0233.0	18.2	23.0			QL=6 ST=2 TYP=5
	15400	LEAR	8	S	0232.3	0233.0	2.0	30.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0232.3	0233.0	1.7	180.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0232.8	0233.0	.5	81.0			QL=6 ST=2 TYP=5
	1415	MANI	3	S	0233.3	0235.5	6.7	126.0	42.0		
	200	HIRA	46	C	0234.6	0236.5	6.3	905.0	91.0		0
	245	PALE	47	GB	0234.8	0235.0	.7	56.0			QL=6 ST=2 TYP=5
	4995	LEAR	47	GB	0234.8	0236.5	14.8	100.0			QL=6 ST=2 TYP=5
	4995	PALE	8	S	0235.0	0235.5	.6	26.0			QL=6 ST=2 TYP=3
	208	VORO	46	C	0235.0	0238.0	4.0	200.0D			
	8800	PALE	8	S	0235.3	0235.5	.3	13.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	0235.5	0236.1	2.6	70.0			QL=6 ST=2 TYP=5
	2840	PEKG	4	S/F	0235.5	0236.4	5.5	64.1	19.2		
	4995	PALE	47	GB	0235.5	0236.5	10.0	93.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	0235.5	0236.6	4.8	79.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0235.8	0236.3	1.3	320.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	0235.8	0236.3	4.3	69.0			QL=6 ST=2 TYP=5
	4995	MANI	3	S	0235.9	0237.2	2.3	60.6	20.2		
	245	PALE	49	GB	0236.0	0236.5	1.3	1000.0			QL=6 ST=2 TYP=6
	100	HIRA	45	C	0236.3	0236.6	1.2	1200.0	410.0		WL
	2840	PEKG	30	PBI	0241.0	0311.0	103.0D	20.6			
	9400	TYKW	30	PBI	0242.0		120.0	16.0	6.0		
	1000	TYKW	30	PBI	0244.0		145.0	4.0	2.0		
	2000	TYKW	30	PBI	0244.0		145.0	7.0	3.5		
	1000	TYKW	5	S	0244.6	0244.7	.7	3.0	.7		
	3750	TYKW	30	PBI	0247.0		130.0	14.0	7.0		
	1000	TYKW	45	C	0248.0	0248.3	1.5	22.0	3.0		
	245	LEAR	8	S	0248.0	0248.8	2.0	15.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0248.8	0248.8	1.3	22.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	0252.0	0252.6	3.5	2.0	.7		
	9400	TYKW	45	C	0252.0	0256.7	6.0	6.0	1.5D		
	1000	TYKW	45	C	0252.3	0252.9	2.0	290.0	45.0		
	410	LEAR	47	GB	0252.8	0255.0	5.2	130.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0253.8	0258.1	5.2	230.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0254.5	0254.6	.3	60.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0254.6	0255.0	.5	160.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	0256.0	0256.9	2.0	9.0	3.0		
	610	LEAR	47	GB	0256.0	0256.8	1.1	200.0			QL=6 ST=2 TYP=5
	1415	LEAR	47	GB	0256.0	0257.5	2.5	57.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	0256.2	0256.7	1.5	6.0	2.0		
	1415	PALE	4	S/F	0256.3	0256.6	2.3	27.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	0256.5	0256.6	.3	219.0			QL=6 ST=2 TYP=5
	4995	PALE	8	S	0256.8	0257.0	1.8	22.0			QL=6 ST=2 TYP=3
	208	VORO	24	R	0257.0	0340.0U	63.0D	45.0			
	200	HIRA	27	RF	0258.0	0342.0	150.0	80.0	30.0		WL
	500	HIRA	22	GRF	0258.8	0310.6	63.0	6.0	4.0		0
	3750	TYKW	21	GRF	0259.0	0340.0	115.0	8.0	4.0		
	2000	TYKW	21	GRF	0301.0	0350.0	125.0	7.0	4.0		
	17000	NOBE	20	GRF	0301.6	0316.8	119.0	18.0			0
	9400	TYKW	45	C	0303.0	0313.4	27.0	21.0	10.0D		
	245	PALE	47	GB	0303.0	0304.3	4.3	60.0			QL=6 ST=2 TYP=5
	1000	TYKW	42	SER	0305.0	0315.3	27.5	184.0	10.0		
	3750	TYKW	45	C	0305.0	0316.7	25.0	12.0	5.0		
	1000	TYKW			0305.0	0322.8		127.0			
	100	HIRA	27	RF	0307.0	0331.0	50.0D	300.0	100.0		0
	2000	TYKW	45	C	0308.0E	0317.3	40.0D	10.0	4.0D		
	2840	PEKG	1	S	0315.0	0316.3	3.0	5.9	1.8		
	1415	LEAR	47	GB	0315.1	0315.3	1.7	210.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0315.1	0317.3	2.9	19.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
13	15400	LEAR	4	S/F	0315.1	0317.3	2.2D	21.0			QL=6 ST=2 TYP=3
	610	LEAR	4	S/F	0315.6	0317.1	2.7	49.0			QL=6 ST=2 TYP=3
	500	HIRA	45	C	0316.3	0316.7	1.0	25.0	15.0		MR
	4995	LEAR	8	S	0316.5	0316.8	1.0	11.0			QL=6 ST=2 TYP=3
	9400	TYKW	30	PBI	0330.0		70.0	4.0	2.0		
	1000	TYKW	45	C	0333.5	0336.3	15.0	20.0	1.5		
	9400	TYKW	20	GRF	0337.0	0347.0	60.0	8.0	4.0		
	1415	LEAR	47	GB	0339.0	0339.1	1.1	72.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	0349.5	0350.2	1.2	110.0	8.0		
	3750	TYKW	21	GRF	0400.0	0420.0	50.0	5.0	2.5		
	100	HIRA	45	C	0401.0E	0401.3	1.0D	1700.0	480.0		ML
	9400	TYKW	31	ABS	0442.0	0520.0	73.0	-8.0	-4.0		
	3750	TYKW	5	S	0444.9	0445.1	1.0	3.0	1.0		
	2000	TYKW	5	S	0445.0	0445.1	.5	2.0	.5		
	3750	TYKW	31	ABS	0459.0	0520.0	55.0	-6.0	-3.0		
	410	LEAR	8	S	0514.1	0514.6	1.4	15.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0514.1	0514.6	1.4	21.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	0557.8	0558.4	1.0	20.0	2.0		
	3750	TYKW	45	C	0558.0	0608.6	32.0	24.0	11.0D		
	9400	TYKW	5	S	0559.0	0608.8	30.0	45.0	25.0D		
	2000	TYKW	20	GRF	0559.0	0609.0	70.0U	5.0	2.5D		
	4995	ATHN	4	S/F	0559.6	0609.6	19.4	45.0			QL=2 ST=2 TYP=3
	8800	ATHN	4	S/F	0559.6	0609.6	19.4	29.0			QL=6 ST=2 TYP=3
	6100	KISV			0600.0	0603.0		15.0			
	6100	KISV			0600.0	0604.0		22.0			
	6100	KISV			0600.0	0608.0		36.0			
	6100	KISV	46	C	0600.0	0608.8	12.0	37.0			
	2950	GORK	23	GRF	0600.0E	0612.0	280.0D	14.0			
	8800	LEAR	47	GB	0600.1	0604.0	28.5	40.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0600.1	0604.0	29.9	29.0			QL=6 ST=2 TYP=3
	17000	NOBE	20	GRF	0600.6	0609.0	50.0	37.0			0
	2695	LEAR	4	S/F	0601.5	0607.8	24.3	16.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0602.0	0606.0	28.5	27.0			QL=6 ST=2 TYP=3
	9100	GORK	23	GRF	0602.0	0608.6	308.0	52.0			
	1000	TYKW	45	C	0604.4	0604.5	.5	4.0	1.0		
	1000	TYKW	45	C	0605.5	0609.0	5.0	33.0	5.0		
	1415	LEAR	4	S/F	0606.1	0609.3	4.4	38.0			QL=6 ST=2 TYP=3
	950	GORK	4	S/F	0608.3	0609.4	1.4	20.0			
	1000	TYKW	5	S	0610.5	0611.1	1.5	3.0	1.0		
	1000	TYKW	45	C	0612.0	0613.2	5.0	11.0	4.0		
	6100	KISV	29	PBI	0612.0	0612.0	22.0	17.0			
	9400	TYKW	29	PBI	0629.0		50.0D	14.0	10.0D		
	3750	TYKW	29	PBI	0630.0		45.0	6.0	3.0		
	1470	POTS	45	C	0813.0	0814.4	12.0	131.0			
	1415	LEAR	47	GB	0813.1	0813.5	1.5	219.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0813.6	0813.6	1.0	70.0			QL=6 ST=2 TYP=5
	15400	LEAR	8	S	0813.8	0814.0	.3	28.0			QL=5 ST=2 TYP=3
	8800	LEAR	8	S	0813.8	0814.0	.3	11.0			QL=5 ST=2 TYP=3
	610	LEAR	8	S	0817.6	0817.8	1.7	10.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0817.6	0818.3	1.9	11.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0817.8	0819.1	2.5	13.0			QL=6 ST=2 TYP=3
	9500	POTS	21	GRF	0824.6	0825.3	12.0	20.0			
	4995	ATHN	4	S/F	0824.6	0825.5	3.7	31.0			QL=2 ST=2 TYP=3
	8800	ATHN	4	S/F	0824.8	0825.5	3.5	20.0			QL=6 ST=2 TYP=3
	9100	GORK	1	S	0825.0	0825.3	1.0	25.0			
	15400	LEAR	8	S	0825.1	0825.1	1.0	31.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0825.1	0825.3	1.2	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0825.1	0825.3	1.2	26.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0826.8	0827.0	.3	6.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0826.8	0827.0	.3	4.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0833.1	0833.3	.2	7.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0833.1	0833.3	.7	22.0			QL=6 ST=2 TYP=3
	15400	LEAR	47	GB	0842.0	0842.3	1.1	59.0			QL=6 ST=2 TYP=5
	15400	LEAR	8	S	0846.8	0847.1	.3	35.0			QL=5 ST=2 TYP=3
	245	LEAR	8	S	0853.6	0853.6	.2	15.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0853.6	0853.6	.2	5.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0853.6	0853.6	.2	3.0			QL=6 ST=2 TYP=3
	8800	LEAR	20	GRF	0912.0	0916.5	13.3	21.0			QL=5 ST=2 TYP=2
	4995	LEAR	20	GRF	0913.6	0916.5	9.0	16.0			QL=5 ST=2 TYP=2
	410	LEAR	47	GB	0917.5	0917.6	.1	72.0			QL=6 ST=3 TYP=5
	9100	GORK	2	S/F	0939.9	0942.0	2.1	27.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
13	8800	LEAR	8	S	0940.8	0941.6	1.8	21.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0940.8	0941.6	2.3	22.0			QL=6 ST=3 TYP=3
	4995	ATHN	4	S/F	0940.8	0941.8	4.8	20.0			QL=2 ST=2 TYP=3
	8800	ATHN	4	S/F	0940.8	0942.1	3.2	8.0			QL=6 ST=2 TYP=3
	9500	POTS	4	S/F	0941.0	0942.0	4.0	20.0			
	410	LEAR	8	S	0952.5	0952.6	.1	25.0			QL=6 ST=2 TYP=3
	1470	POTS	40	F	0952.5	0953.3	2.0	7.0			
	536	ONDR	41	F	1013.0	1016.0	3.5	20.0			
	610	LEAR	8	S	1015.3	1015.3	.2	30.0			QL=5 ST=2 TYP=3
	410	LEAR	47	GB	1015.3	1015.3	.2	55.0			QL=5 ST=2 TYP=5
	245	LEAR	8	S	1015.3	1015.3	.2	10.0			QL=5 ST=2 TYP=3
	808	ONDR	8	S	1016.5	1016.5	.1	17.0			
	536	ONDR	8	S	1046.5	1046.5	.1	7.0			
	536	ONDR	8	S	1138.0	1138.0	.1	8.0			
	536	ONDR	41	F	1153.5	1156.0	3.0	14.0			
	5200	BERN	3	S	1203.0	1205.9	4.0	22.0			
	3100	BERN	3	S	1203.0	1205.9	4.0	32.0			
	536	ONDR	8	S	1327.0	1327.0	.1	8.0			
	9400	HUAN	23	GRF	1406.0	1442.5	166.4	28.2	11.9		L
	8400	BERN	3	S	1413.0	1414.3	7.0	114.0			
	5200	BERN	3	S	1413.0	1414.3	7.0	230.0			
	3100	BERN	3	S	1413.0	1414.3	7.0D	54.0			
	9400	HUAN	4	S/F	1413.4	1414.4	2.0	60.5	31.2		L
	4995	ATHN	47	GB	1413.6	1414.5	7.5	100.0			QL=2 ST=2 TYP=5
	8800	ATHN	47	GB	1413.6	1414.5	7.5	53.0			QL=6 ST=2 TYP=5
	2695	ATHN	4	S/F	1413.6	1414.5	6.0	31.0			QL=2 ST=2 TYP=3
	1415	ATHN	4	S/F	1414.1	1414.6	2.2	7.0			QL=6 ST=2 TYP=3
	2800	OTTA	21	GRF	1420.0	1447.0	170.0D	18.8			
	2800	OTTA	4	S/F	1436.0	1437.7	7.0	21.6	9.0		
	9400	HUAN	4	S/F	1436.8	1437.7	2.4	32.4	19.0		L
	2800	OTTA	20	GRF	1540.0	1545.0	25.0	3.2	1.6		
	2800	OTTA	21	GRF	1724.0	1725.0	20.0	2.0	1.0		
	2800	OTTA	1	S	1732.0	1732.5	4.0	3.8	1.2		
	2800	OTTA	20	GRF	1800.0	1810.0	30.0	2.0	1.0		
	2800	OTTA	20	GRF	1840.0	1855.0	70.0	5.6	2.8		
	9400	HUAN	1	S	1900.8	1901.4	2.8	8.4	4.2		0
	2800	OTTA	22	GRF	2000.0	2050.0	120.0	4.4	2.2		
	9400	TYKW	5	S	2214.0	2215.6	7.0	9.0	3.0		
	3750	TYKW	21	GRF	2255.0	2322.0	60.0	2.0	1.0		
	9400	TYKW	5	S	2257.7	2258.3	1.3	25.0	10.0		
	8800	PALE	8	S	2258.1	2258.1	.5	27.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	2259.0		8.0	4.0	2.0		
	9400	TYKW	5	S	2311.0	2311.7	3.0	6.0	2.0		
	2000	TYKW	5	S	2318.0	2318.5	2.0	1.5	.7		
	3750	TYKW	5	S	2318.0	2318.8	2.0	3.0	2.0		
	1000	TYKW	21	GRF	2350.0	0035.0	210.0	4.0	2.0		
	3750	TYKW	45	C	2356.5	2357.8	2.5	15.0	5.0		
	4995	LEAR	8	S	2356.8	2357.8	2.0	20.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2356.8	2357.8	2.0	26.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	2356.8	2357.8	2.2	27.0	9.0		
	2000	TYKW	45	C	2357.0	2358.0	1.5	1.5	.5		
	15400	LEAR	8	S	2357.6	2357.8	1.0	19.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2357.6	2357.8	1.2	5.0			QL=6 ST=2 TYP=3
	3750	TYKW	30	PBI	2359.0		7.0	2.0	2.0		
	9400	TYKW	30	PBI	2359.0		10.0	4.0	4.0		
14	200	GORK	44	NS	0531.0E		382.0D		50.0		
	100	GORK	44	NS	0533.0E		393.0D		10.0		
	127	TORN	44	NS	0650.0E	1316.4	530.0D	1100.0	78.0		V1
	204	IZMI	44	NS	0700.0E		300.0D	85.0			
	260	ONDR	44	NS	0750.0E		384.0D	40.0			
	245	PALE	43	NS	1705.0	1917.6	618.0D	110.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2115.0E	0325.0	615.0D	50.0	35.0		ML
	100	HIRA	44	NS	2115.0E	0440.0	615.0D	800.0	240.0		ML
	245	LEAR	43	NS	2151.0	2249.8	755.0D	67.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		34.0		
	3750	TYKW			0006.0	0017.9		28.0			
	3750	TYKW	45	C	0006.0	0031.6	35.0	30.0	15.0		
	2000	TYKW	28	PRE	0008.0	0011.0	7.0	2.0	1.0		
	9400	TYKW			0009.0	0017.8		37.0			
	9400	TYKW	45	C	0009.0	0031.6	50.0	65.0	18.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean (10^{-22} W/m^2 Hz)	Int	Remarks
14	1415	LEAR	4	S/F	0014.6	0024.8	14.4	15.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0014.8	0017.8	43.2	43.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0014.8	0017.8	40.2	42.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	0015.0	0017.3	7.0	110.0	10.0		
	2695	LEAR	4	S/F	0015.0	0017.3	24.0	17.0			QL=6 ST=2 TYP=3
	17000	NOBE	20	GRF	0015.0	0034.2	45.0	28.0			0
	15400	LEAR	4	S/F	0015.3	0017.0	39.7	30.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0016.0	0017.8	5.3	40.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0016.3	0017.3	3.8	28.0			QL=6 ST=2 TYP=3
	2000	TYKW	30	PBI	0022.0		148.0	6.0	3.0		
	2000	TYKW	8	S	0024.8	0024.9	.3	12.0	4.0		
	1000	TYKW	5	S	0024.8	0025.0	.5	10.0	2.0		
	4995	PALE	8	S	0031.3	0031.5	.8	36.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0031.3	0031.5	.5	39.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0032.1	0033.1	2.0	26.0			QL=6 ST=2 TYP=3
	3750	TYKW	30	PBI	0040.0		120.0	12.0	6.0		
	9400	TYKW	30	PBI	0059.0		96.0	10.0	5.0		
	1000	TYKW	20	GRF	0105.0	0130.0	130.0	3.0	1.5		
	3750	TYKW	20	GRF	0115.0	0200.5	85.0	5.0	2.0		
	2000	TYKW	31	ABS	0150.0	0330.0	100.0	-1.7	-.7		
	9400	TYKW	31	ABS	0235.0	0320.0	145.0	-6.0	-3.0		
	3750	TYKW	31	ABS	0240.0	0320.0	120.0	-6.0	-3.0		
	3750	TYKW	20	GRF	0445.0	0502.0	40.0	3.0	1.5		
	610	LEAR	8	S	0536.1	0536.1	.2	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0536.1	0536.1	.2	39.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0536.1	0536.1	.2	10.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0643.6	0643.6	1.0	100.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0643.8	0643.8	.2	5.0			QL=6 ST=2 TYP=3
	2950	GORK	20	GRF	0651.3	0900.0	280.0	6.4			
	245	LEAR	8	S	0708.8	0709.0	.3	33.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0708.8	0709.0	.3	11.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0722.8	0723.0	.3	99.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0722.8	0723.0	.3	16.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	0723.3	0723.4	.2	150.0	30.0		
	410	LEAR	8	S	0816.3	0816.5	.3	13.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0816.3	0816.5	.3	71.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0858.1	0858.1	.2	9.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0858.1	0858.1	.2	21.0			QL=6 ST=2 TYP=3
	9500	POTS	20	GRF	0914.0	0915.0	16.0	8.0			
	9100	GORK	2	S/F	0914.1	0915.2	6.0	10.0			
	29	UPIC	45	C	1057.7	1058.4	1.6				
	33	UPIC	45	C	1058.6	1058.9	1.2				
	9400	HUAN	2	S/F	1321.0	1321.5	2.6	5.3	4.0		0
	9400	HUAN	29	PBI	1323.6	1323.6	26.5	3.3	1.2		0
	9400	HUAN	1	S	1454.2	1454.7	1.3	11.9	5.3		R
	2800	OTTA	20	GRF	1800.0	1805.0	20.0	2.0	1.0		
	9400	HUAN	1	S	1852.3	1852.9	2.1	14.6	7.3		R
	8800	PALE	8	S	1852.6	1852.6	.2	19.0			QL=6 ST=2 TYP=3
	2800	OTTA	21	GRF	1855.0	2005.0	125.0	6.0	2.8		
	2800	OTTA	40	F	1858.0	1903.8	11.0	16.8			
	8800	LEAR	8	S	2224.8	2225.1	.7	13.0			QL=5 ST=2 TYP=3
	100	HIRA	42	SER	2244.3	2244.6	5.0	2400.0			ML
	1000	TYKW	45	C	2300.0	2300.8	2.5	18.0	4.0		
	8800	LEAR	4	S/F	2305.3	2306.8	2.8	13.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2306.1	2306.1	1.0	70.0			QL=6 ST=2 TYP=5
	1000	TYKW	5	S	2331.0	2331.3	.8	6.0	1.5		
15	100	GORK	44	NS	0540.0E		293.0D		10.0		
	200	GORK	44	NS	0540.0E		293.0D		10.0		
	127	TORN	44	NS	0650.0E	1328.1	530.0D	500.0	125.0		V1
	260	ONDR	44	NS	0740.0E		387.0D	14.0			
	100	HIRA	44	NS	2115.0E	0044.0	610.0D	400.0	150.0		ML
	200	HIRA	44	NS	2115.0E	0329.0	610.0D	40.0	20.0		ML
	208	VORO	44	NS	2300.0E		300.0D		14.0		
	1000	TYKW	5	S	0004.0	0004.3	.5	14.0	4.0		
	1000	TYKW	45	C	0115.5	0116.0	1.3	25.0	5.0		
	1000	TYKW	5	S	0124.0	0124.3	.6	11.0	3.0		
	9400	TYKW	45	C	0155.0	0203.2	25.0	475.0	110.0		
	9400	TYKW	47	GB	0156.0	0201.3	29.0	1100.0	200.0		
	2000	TYKW	45	C	0156.0	0203.2	24.0	448.0	95.0		
	4995	MANI	47	GB	0156.3	0203.2	14.7	660.0	220.0		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
15	8800	LEAR	49	GB	0156.6	0201.1	24.2	1000.0			QL=6 ST=2 TYP=6
	4995	LEAR	49	GB	0156.6	0203.1	24.2	600.0			QL=6 ST=2 TYP=6
	4995	PALE	49	GB	0156.8	0203.1	13.8	740.0			QL=6 ST=2 TYP=6
	2840	PEKG	46	C	0157.0	0202.6	14.0	179.0D			
	8800	PALE	49	GB	0157.3	0203.1	13.3	1199.0			QL=6 ST=2 TYP=6
	2695	LEAR	47	GB	0157.6	0201.3	23.2	420.0			QL=6 ST=2 TYP=5
	17000	NOBE	45	C	0157.9	0201.3	11.4	563.0			0
	1000	TYKW	45	C	0158.0	0206.2	58.0	363.0	44.0		
	15400	LEAR	49	GB	0158.0	0201.1	22.8	690.0			QL=6 ST=2 TYP=6
	1415	MANI	47	GB	0158.0	0203.2	12.2	539.5	179.8		
	15400	PALE	49	GB	0158.1	0201.1	12.5	800.0			QL=6 ST=2 TYP=6
	1415	PALE	49	GB	0158.6	0203.1	12.0	730.0			QL=6 ST=2 TYP=6
	500	HIRA	45	C	0201.0	0206.4	16.0	30.0	14.0		WL
	610	PALE	4	S/F	0201.3	0203.1	9.3	40.0			QL=6 ST=2 TYP=3
	1415	LEAR	49	GB	0201.6	0203.1	19.2	630.0			QL=6 ST=2 TYP=6
	610	LEAR	4	S/F	0204.6	0205.3	5.5	28.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0206.1	0206.8	4.0	23.0			QL=6 ST=2 TYP=3
	410	PALE	4	S/F	0206.1	0207.0	4.5	20.0			QL=6 ST=2 TYP=3
	17000	NOBE	29	PBI	0209.3	0209.3	35.0	66.0			0
	8800	PALE	4	S/F	0210.6	0221.3	18.7	33.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	0210.6	0221.3	18.9	24.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	0210.6	0221.3	14.9	19.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0210.6	0221.6	12.2	23.0			QL=6 ST=2 TYP=3
	610	PALE	20	GRF	0210.6	0222.1	34.2	32.0			QL=6 ST=2 TYP=2
	610	LEAR	47	GB	0210.6	0229.8	43.4	219.0			QL=6 ST=2 TYP=5
	2840	PEKG	29	PBI	0211.0		16.0	14.2			
	410	PALE	8	S	0211.8	0212.3	.5	13.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	0218.3	0218.6	.3	31.0			QL=6 ST=2 TYP=3
	500	HIRA	27	RF	0219.5	0241.7	57.0	18.0	10.0		SR
	2000	TYKW	30	PBI	0220.0		160.0	20.0	10.0		
	9400	TYKW	30	PBI	0220.0		150.0	24.0	13.0		
	410	LEAR	20	GRF	0224.5	0237.0	29.5	20.0			QL=6 ST=2 TYP=2
	9400	TYKW	30	PBI	0225.0		145.0	29.0	10.0		
	1000	TYKW	30	PBI	0250.0		140.0	6.0	3.0		
	9400	TYKW	21	GRF	0255.0	0353.0	115.0	14.0	7.0		
	1000	TYKW	8	S	0259.0	0259.1	.4	6.0	1.5		
	9400	TYKW	45	C	0342.0	0342.3	2.0	30.0	6.0		
	4995	LEAR	8	S	0342.1	0342.1	.2	7.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0342.1	0342.1	.5	43.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0342.5	0342.6	.1	26.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0344.5	0345.1	1.5	8.0	2.0		
	3750	TYKW	31	ABS	0450.0	0525.0	100.0	-11.0	-6.0		
	9400	TYKW	31	ABS	0450.0	0530.0	90.0	-9.0	-4.5		
	2000	TYKW	31	ABS	0500.0	0529.0	90.0	-4.0	-2.0		
	100	HIRA	8	S	0527.8	0528.0	.4	2700.0			ML
	245	LEAR	8	S	0532.3	0532.5	.3	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0532.3	0532.5	.3	8.0			QL=6 ST=2 TYP=3
	200	HIRA	42	SER	0539.7	0541.0	9.0	100.0			ML
	245	LEAR	8	S	0552.6	0552.6	.2	33.0			QL=6 ST=3 TYP=3
	410	LEAR	8	S	0552.6	0552.6	.2	11.0			QL=6 ST=3 TYP=3
	9400	TYKW	5	S	0554.0	0554.6	2.0	9.0	3.0		
	610	LEAR	8	S	0631.6	0631.8	.2	11.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0631.6	0631.8	.2	55.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0651.1	0651.1	.2	15.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0651.1	0651.1	.2	6.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0710.8	0711.0	.3	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0710.8	0711.0	.3	10.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0730.1	0730.1	.2	10.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0730.1	0730.1	.2	5.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0730.1	0730.1	.2	15.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0730.1	0730.1	.2	18.0			QL=6 ST=2 TYP=3
	3100	CRIM	20	GRF	0757.0	0904.0	67.0	10.0	3.0		
	9500	POTS	3	S	0840.0	0840.5	4.0	41.0			
	8800	LEAR	47	GB	0840.1	0840.3	1.7	70.0			QL=6 ST=2 TYP=5
	9100	GORK	3	S	0840.1	0840.4	.6	58.0			
	6100	KISV	8	S	0840.2	0840.5	1.0	17.0			
	15400	LEAR	8	S	0840.3	0840.3	.5	25.0			QL=6 ST=2 TYP=3
	9100	GORK	29	PBI	0840.7	0840.9	8.1	10.0			
	6100	KISV	29	PBI	0841.0	0841.0	12.0	3.0			
	9500	POTS	3	S	0855.0	0855.5	2.5	11.0			
	9100	GORK	2	S/F	0855.1	0855.5	4.9	13.0			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
15	6100	KISV	1	S	0855.2	0855.5	3.0	3.0			
	536	ONDR	8	S	1201.2	1201.2	.1	13.0			
	536	ONDR	8	S	1223.5	1223.5	.5	91.0			
	536	ONDR	41	F	1246.0	1246.0	1.0	6.0			
	2800	OTTA	1	S	1426.0	1427.0	2.0	4.0	1.4		
	9400	HUAN	1	S	1426.6	1426.9	1.8	11.0	3.4		L
	11800	BERN	3	S	1440.0	1440.4	1.0	85.0			
	8400	BERN	3	S	1440.0	1440.4	1.0	60.0			
	9400	HUAN	23	GRF	1603.3	1622.2	96.5	23.3	13.0		R
	2800	OTTA	4	S/F	1612.0	1616.5	18.0	36.0	15.0		
	9400	HUAN	3	S	1615.2	1616.6	4.6	38.4	14.5		R
	8800	SGMR	47	GB	1616.0	1616.3	5.1	68.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1616.0	1616.3	5.1	49.0			QL=6 ST=2 TYP=3
	2695	SGMR	47	GB	1616.1	1618.0	5.0	62.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	1616.8	1617.0	3.8	20.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1616.8	1617.3	2.8	32.0			QL=6 ST=2 TYP=3
	2800	OTTA	30	PBI	1630.0	1630.0	80.0	14.4	7.2		
	9400	HUAN	1	S	1647.6	1648.3	1.8	12.3	7.5		R
	2800	OTTA	1	S	1648.0	1648.4	2.0	2.0	1.0		
	9400	HUAN	1	S	1650.4	1652.0	3.7	11.0	7.6		R
	2800	OTTA	1	S	1651.0	1652.0	2.0	2.4	1.2		
	9400	HUAN	22	GRF	1824.3	1838.0	34.1	17.8	5.5		R
	2800	OTTA	32	ABS	1825.0	1905.0	60.0	-4.0	-2.2		
	2800	OTTA	20	GRF	1834.0	1836.0	12.0	5.2	2.6		
	2695	SGMR	4	S/F	1922.8	1925.0	6.0	40.0			QL=6 ST=3 TYP=3
	4995	SGMR	4	S/F	1922.8	1925.0	17.3	38.0			QL=6 ST=3 TYP=3
	15400	SGMR	47	GB	1923.0	1923.1	17.1	50.0			QL=6 ST=3 TYP=5
	610	SGMR	8	S	1923.0	1923.3	1.5	21.0			QL=6 ST=3 TYP=3
	1415	SGMR	8	S	1923.1	1925.0	1.9D	36.0			QL=6 ST=3 TYP=3
	9400	HUAN	22	GRF	1947.1	2003.8	45.6	5.5	1.7		R
	2695	PENT	240	R	2200.0	2215.0	15.0	6.2	3.1		
	245	LEAR	8	S	2247.8	2248.0	.3	21.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	2342.5	2344.4	4.5	8.0	3.0		
	3750	TYKW	45	C	2343.0	2344.7	4.0	5.0	1.5		
16	245	LEAR	43	NS	0138.8	0620.8	527.2D	50.0			QL=6 ST=2 TYP=1
	127	TORN	44	NS	0650.0E	0931.1	530.0D	200.0	5.0		V1
	204	IZMI	43	NS	0700.0		300.0	40.0			
	260	ONDR	44	NS	0749.0E	0937.0	371.0D	5.0			
	100	GORK	44	NS	1000.0E		120.0D		5.0		
	200	GORK	44	NS	1004.0E		110.0D		5.0		
	245	LEAR	44	NS	2150.0E	2247.8	235.0D	18.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D				
	245	LEAR	8	S	0033.6	0033.8	.2	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0033.6	0033.8	.2	6.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0057.6	0057.6	1.2	3.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0057.6	0057.6	.2	17.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0113.8	0113.8	.2	19.0			QL=6 ST=2 TYP=3
	3750	TYKW	28	PRE	0150.0	0339.0	109.0	16.0	5.0		
	9400	TYKW	5	S	0159.0	0200.7	3.0	12.0	3.0		
	8800	LEAR	8	S	0159.6	0200.6	2.0	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0200.3	0200.6	.5	8.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	0202.0		5.0	2.0	1.0		
	9400	TYKW	5	S	0240.5	0242.6	15.0	9.0	3.5		
	1000	TYKW	45	C	0255.5	0255.7	1.5	38.0	3.0		
	8800	LEAR	20	GRF	0306.8	0345.5	218.2	110.0			QL=5 ST=2 TYP=2
	15400	LEAR	20	GRF	0307.8	0422.5	187.2	58.0			QL=5 ST=2 TYP=2
	9400	TYKW	21	GRF	0308.0	0407.0	160.0	36.0	16.0		
	2000	TYKW	45	C	0310.0	0406.0	100.0	17.0	9.0		
	1000	TYKW	5	S	0316.0	0316.6	1.5	2.0	.7		
	4995	LEAR	20	GRF	0316.0	0345.6	126.0	67.0			QL=5 ST=2 TYP=2
	2695	LEAR	20	GRF	0316.0	0404.0	104.0	30.0			QL=5 ST=2 TYP=2
	1000	TYKW	5	S	0318.0	0318.3	1.0	1.0	.3		
	1000	TYKW	45	C	0320.0	0334.0	20.0	5.0	2.5		
	17000	NOBE	21	GRF	0323.1	0337.0	22.0D	9.0			0
	500	HIRA	46	C	0328.6	0338.5	15.6	5.0	3.0		0
	3750	TYKW	45	C	0339.0	0346.3	51.0	56.0	33.0		
	3750	TYKW			0339.0	0406.0		42.0			
	1000	TYKW	29	PBI	0340.0		80.0	3.0	1.5		
	9400	TYKW	45	C	0345.5	0346.3	3.5	42.0	10.0		
	17000	NOBE	20	GRF	0345.7	0416.0	90.0	19.0			0

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	9400	TYKW	29	PBI	0349.0		6.0	6.0	3.0		
	3750	TYKW	29	PBI	0430.0		85.0	27.0	10.0		
	2000	TYKW	29	PBI	0450.0		9.0	7.0	3.0		
	9100	GORK	2	S/F	0634.5	0635.5	28.0	8.0	4.0		
	6100	KISV	21	GRF	0804.0	0819.1	30.0	9.0			
	9500	POTS	20	GRF	0815.0	0819.0	18.0	12.0			
	9100	GORK	20	GRF	0815.3	0819.0	14.0	15.0			
	8800	LEAR	8	S	0818.6	0819.3	1.0	13.0			QL=6 ST=2 TYP=3
	2950	GORK	20	GRF	0903.0	0912.0	145.0	9.8			
	3100	CRIM	20	GRF	0904.0	0912.0	73.0	9.0	3.0		
	2695	LEAR	8	S	0911.5	0912.3	1.0	20.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0929.8	0929.8	.2	25.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0929.8	0929.8	.2	11.0			QL=6 ST=2 TYP=3
	5200	BERN	3	S	0958.0	0959.5	3.0	36.0			
	8400	BERN	3	S	0958.0	0959.5	3.0	122.0			
	11800	BERN	3	S	0958.0	0959.5	3.0	22.0			
	9100	GORK	3	S	0958.7	0959.8	4.5	35.0			
	9500	POTS	4	S/F	0958.8	0959.4	3.7	26.0			
	9500	POTS			0958.8	0959.7		26.0			
	8800	LEAR	8	S	0959.1	0959.3	1.7	30.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0959.3	0959.3	1.0	13.0			QL=6 ST=2 TYP=3
	113	POTS	8	S	1207.5	1208.8	1.3U	320.0	60.0		
	9400	HUAN	1	S	1243.0	1243.7	1.9	4.0	3.2		R
	9400	HUAN	2	S/F	1414.4	1417.7	6.6	18.9	6.8		R
	9400	HUAN	29	PBI	1421.0	1421.0	17.8	2.0	0.8		0
	9400	HUAN	2	S/F	1448.0	1449.0	3.0	5.4	2.7		0
	2800	OTTA	1	S	1614.2	1614.5	1.0	3.2	1.6		
	9400	HUAN	20	GRF	1832.7	1842.0	20.4	2.7	1.6		0
	9400	HUAN	21	GRF	1928.7	2137.0	128.3U	47.3	22.8		R
	2800	OTTA	21	GRF	2020.0	2047.0	140.0	10.0			
	2695	PENT	3	S	2110.0	2112.8	12.0	75.0	32.0		
	4995	PALE	47	GB	2110.5	2111.3	11.1	280.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	2110.6	2111.3	8.9	470.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	2111.0	2111.3	10.6	189.0			QL=6 ST=2 TYP=5
	9400	HUAN	3	S	2115.0E	2115.0U	4.4D	54.1	38.8		L
	2695	PENT	29	PBI	2122.0	2122.0	68.0	18.6	9.0		
	3750	TYKW	45	C	2213.0	2216.0	7.0	3.0	1.5		
	2000	TYKW	45	C	2213.0	2216.0	10.0	3.0	1.5		
	3750	TYKW	31	ABS	2220.0	2310.0	170.0	-16.0	-8.0		RAIN
	2000	TYKW	31	ABS	2223.0	2311.0	145.0	-4.0	-2.0		
17	200	GORK	44	NS	0613.0E		337.0D		5.0		
	260	ONDR	44	NS	0752.0E	0900.0	368.0D	51.0			
	245	PALE	43	NS	2125.0	2136.0	110.0	23.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0010.3	0010.5	.3	19.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0010.3	0010.5	.3	18.0			QL=6 ST=2 TYP=3
	9400	TYKW	21	GRF	0030.0	0038.0	60.0	6.0	3.0		
	2000	TYKW	20	GRF	0103.0	0125.0	55.0	2.0	1.0		
	9400	TYKW	5	S	0104.5	0105.2	2.0	3.0	1.0		
	3750	TYKW	5	S	0123.0	0127.0	25.0	3.0	1.5		
	9400	TYKW	5	S	0229.0	0233.0	25.0	3.0	1.5		
	3750	TYKW	5	S	0304.0	0311.0	18.0	2.0	1.0		
	9400	TYKW	5	S	0307.0E	0307.2	2.0D	5.0	1.5D		
	3750	TYKW	21	GRF	0325.0	0338.0	150.0	5.0	2.0		
	9400	TYKW	20	GRF	0330.0	0340.0	35.0	4.0	2.0		
	2000	TYKW	21	GRF	0330.0	0430.0	170.0	4.0	1.5		
	245	LEAR	8	S	0336.1	0336.3	.7	5.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0336.1	0336.6	.7	10.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0336.3	0336.5	.5	4.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0342.5	0342.6	.1	22.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0402.6	0402.6	.2	39.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	0410.0	0428.0	100.0	7.0	3.5		
	9400	TYKW	21	GRF	0418.0	0423.0	60.0	8.0	3.0		
	8800	LEAR	4	S/F	0421.3	0423.8	4.0	17.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0434.5	0434.7	1.0	7.0	1.5		
	3750	TYKW	5	S	0532.0	0534.5	11.0	5.0	2.0		
	2000	TYKW	5	S	0532.0	0534.5	8.0	4.0	1.5		
	245	LEAR	8	S	0540.8	0541.0	.3	28.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0540.8	0541.0	.3	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0540.8	0541.0	.3	8.0			QL=6 ST=2 TYP=3
	2950	GORK	23	GRF	0611.3	1045.0	350.0D	19.0			

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
17	245	LEAR	8	S	0621.8	0622.0	.3	46.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0638.8	0639.0	.3	38.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0713.8	0713.8	.2	22.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0756.3	0756.5	.3	28.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0756.3	0756.5	.3	5.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0756.3	0756.5	.3	6.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0756.3	0756.5	.3	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0815.6	0815.8	.2	7.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0815.6	0815.8	.2	40.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0834.0	0834.1	.1	40.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0834.0	0834.1	.1	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0853.1	0853.1	.2	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0853.1	0853.1	.2	5.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0853.1	0853.1	.2	4.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0902.3	0902.3	1.2	110.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0937.1	0937.1	.2	38.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0937.1	0937.1	.2	9.0			QL=6 ST=2 TYP=3
	6100	KISV	22	GRF	0947.0	0949.8	10.0	6.0			
	9100	GORK	22	GRF	0948.0	0949.8	30.0	10.0			
	4995	ATHN	47	GB	1033.3	1043.6	18.8	53.0			QL=2 ST=2 TYP=5
	113	POTS	4	S/F	1035.5	1036.7	1.5	350.0	20.0		
	2695	ATHN	4	S/F	1035.6	1039.1	13.2	32.0			QL=2 ST=2 TYP=3
	1415	ATHN	4	S/F	1037.1	1038.3	6.5	48.0			QL=2 ST=2 TYP=3
	8800	ATHN	4	S/F	1037.3	1044.8	13.3	21.0			QL=2 ST=2 TYP=3
	950	GORK	21	GRF	1037.8	1051.0	19.7	5.0			
	3100	BERN	21	GRF	1038.0	1041.2	50.0D	40.0			
	5200	BERN	21	GRF	1038.0	1042.0	50.0D	39.0			
	8400	BERN	21	GRF	1038.0	1043.1	50.0D	31.0			
	11800	BERN	21	GRF	1038.0	1053.9	30.0U	27.0			
	650	GORK	21	GRF	1038.4		19.0	4.0			
	3100	CRIM	3	S	1038.5	1041.5	12.0	24.0	8.0		
	536	ONDR	40	F	1039.0	1039.5	8.0	5.0			
	650	GORK	4	S/F	1039.3	1039.7	2.0	6.5			
	2950	GORK	4	S/F	1039.3	1041.3	4.5	24.0			
	950	GORK	4	S/F	1039.4	1039.8	1.8	76.0			
	9100	GORK	22	GRF	1039.8	1043.6	60.0	18.0			
	2650	DWIN	1	S	1040.0	1040.0	2.0				
	808	ONDR	4	S/F	1040.0	1041.0	3.0	25.0			
	536	ONDR	8	S	1045.0	1045.0	.1	18.0			
	8800	ATHN	4	S/F	1133.8	1135.6	4.5	27.0			QL=2 ST=2 TYP=3
	9400	HUAN	20	GRF	1204.4	1208.5	13.2	2.6	1.0		0
	536	ONDR	8	S	1213.0	1213.8	1.0	7.0			
	536	ONDR	8	S	1314.5	1314.5	.1	18.0			
	9400	HUAN	28	PRE	1346.4	1401.4	15.0	18.5	7.0		R
	5200	BERN	21	GRF	1347.0	1402.6	50.0D	207.0			
	8400	BERN	21	GRF	1347.0	1402.6	50.0D	190.0			
	11800	BERN	21	GRF	1347.0	1402.6	50.0D	122.0			
	9500	POTS	4	S/F	1355.0	1402.5	15.0	142.0			
	4995	SGMR	47	GB	1356.0	1402.6	45.6	169.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1356.3	1402.6	35.2	219.0			QL=6 ST=2 TYP=5
	8800	ATHN	47	GB	1357.3	1403.3	29.0	130.0			QL=2 ST=2 TYP=5
	15400	SGMR	47	GB	1358.6	1404.3	43.0	100.0			QL=6 ST=2 TYP=5
	3000	POTS	4	S/F	1401.0	1402.7	9.0U	32.0			
	1470	POTS			1401.0	1404.9		21.0			
	9400	HUAN	45	C	1401.4	1402.4	4.3	152.3	70.4		R
	3100	BERN	21	GRF	1401.5	1404.6	40.0D	46.0			
	2695	SGMR	4	S/F	1402.1	1402.8	21.5	30.0			QL=6 ST=2 TYP=3
	4995	ATHN	47	GB	1402.3	1403.3	24.0	119.0			QL=2 ST=2 TYP=5
	2695	ATHN	4	S/F	1402.3	1403.3	24.0	23.0			QL=2 ST=2 TYP=3
	1415	ATHN	4	S/F	1404.1	1405.1	8.4	24.0			QL=2 ST=2 TYP=3
	1415	SGMR	4	S/F	1404.5	1404.6	3.1	44.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1405.7	1405.7	90.5	43.7	18.7		R
	2800	OTTA			1417.0		95.0D	18.2			
	9400	HUAN	20	GRF	1734.1	1743.4	13.4	4.0	3.0		R
	245	LEAR	4	S/F	2304.1	2306.1	2.2	42.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2306.1	2306.1	.2	8.0			QL=6 ST=2 TYP=3
18	245	LEAR	43	NS	0543.1	0611.3	159.4	139.0			QL=6 ST=2 TYP=1
	200	GORK	44	NS	0609.0E		351.0D		5.0		
	260	ONDR	44	NS	0754.0E	1323.0	366.0D	23.0			
	127	TORN	44	NS	0930.0E		180.0D		2.0		V1

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
18	200	HIRA	44	NS	2115.0E	0015.0	610.0D	10.0	5.0		WR
	208	VORO	44	NS	2300.0E		300.0D		2.0		
	245	LEAR	43	NS	2332.0	0620.1	656.0D	92.0			QL=6 ST=2 TYP=1
	3750	TYKW	21	GRF	0007.0	0009.0	43.0	3.0	1.0		
	9400	TYKW	20	GRF	0019.0	0023.0	50.0	5.0	2.0		
	3750	TYKW	5	S	0020.0	0023.0	20.0	3.0	1.0		
	245	PALE	8	S	0040.1	0041.1	1.0	36.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0056.0	0057.8	2.0	19.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0100.0	0103.0	10.0	2.0	1.0		
	2000	TYKW	21	GRF	0115.0	0150.0	180.0	2.0	1.0		
	3750	TYKW	21	GRF	0120.0	0133.0	40.0	2.0	1.0		
	2000	TYKW	45	C	0122.0	0124.2	4.0	16.0	7.0		
	500	HIRA	45	C	0122.0	0123.7	3.3	80.0	15.0		0
	610	LEAR	4	S/F	0122.1	0123.8	3.9	18.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0122.1	0124.8	3.7	189.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	0122.5	0124.2	4.0	9.0	1.5		
	2695	LEAR	4	S/F	0122.8	0123.6	4.3	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0123.0	0123.9	3.0	8.0	3.5		
	9400	TYKW	5	S	0123.0	0124.0	3.0	6.0	2.0		
	610	PALE	8	S	0123.0	0123.8	2.0	24.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0123.0	0124.0	2.1	6.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0123.1	0124.0	1.9	8.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	0123.8	0124.8	1.3	180.0			QL=6 ST=2 TYP=5
	2000	TYKW	29	PBI	0126.0		10.0	3.0	1.5		
	245	PALE	47	GB	0140.6	0140.8	.5	100.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0140.8	0141.0	.3	85.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0141.8	0142.0	.3	85.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	0222.0	0223.1	4.0	4.0	1.5		
	3750	TYKW	5	S	0235.0	0241.0	15.0	2.0	1.0		
	3750	TYKW	20	GRF	0254.0	0304.0	35.0	3.0	1.5		
	4995	LEAR	4	S/F	0300.8	0303.6	4.2	18.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0301.0	0303.7	3.0D	10.0	4.0D		
	8800	LEAR	8	S	0302.1	0303.8	1.9	15.0			QL=5 ST=2 TYP=3
	9400	TYKW	29	PBI	0307.0E		23.0D	4.0D	2.0D		
	1000	TYKW	45	C	0453.0	0503.1	20.0	36.0	14.0		INTERFERENCE
	2000	TYKW	45	C	0453.0	0503.2	20.0	61.0	23.0		
	2695	LEAR	4	S/F	0453.8	0456.3	21.0	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	45	C	0454.0	0503.1	20.0	55.0	22.0		
	9400	TYKW	45	C	0454.0	0503.5	20.0	30.0	18.0		
	500	HIRA	42	SER	0454.0	0454.0	18.0	30.0	12.0		MR
	4995	LEAR	4	S/F	0454.0	0458.3	20.6	11.0			QL=6 ST=2 TYP=3
	2840	PEKG	45	C	0454.0	0503.2		69.7	21.0U		
	2840	PEKG			0454.0	0504.6	23.0	49.5			
	1415	LEAR	47	GB	0454.1	0456.3	19.7	30.0			QL=6 ST=2 TYP=5
	610	LEAR	4	S/F	0454.1	0456.3	16.9	27.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0454.3	0503.1	17.5	27.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	0454.5	0500.3	20.5	11.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0455.6	0504.5	18.9	26.0			QL=6 ST=2 TYP=3
	200	HIRA	46	C	0455.8	0505.0	18.7	25.0	7.0		0
	245	LEAR	4	S/F	0456.1	0502.6	14.0	37.0			QL=6 ST=2 TYP=3
	9395	PEKG	45	C	0457.0	0504.5	25.0	35.7	17.0		
	1000	TYKW	29	PBI	0513.0U		70.0U	4.0U	1.5U		
	2000	TYKW	29	PBI	0513.0		90.0	5.0	2.0		
	3750	TYKW	29	PBI	0514.0		90.0	11.0	5.0		
	9400	TYKW	29	PBI	0514.0		40.0	17.0	7.0		
	245	LEAR	4	S/F	0518.6	0520.5	2.4	16.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0640.3	0640.8	.5	40.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0640.6	0640.8	.2	5.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0659.6	0659.6	.2	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0659.6	0659.6	.2	4.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0703.5	0703.8	1.1	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0703.6	0703.6	.2	4.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0719.1	0719.1	.2	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0719.1	0719.1	.2	8.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0738.0	0738.1	.1	4.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0738.0	0738.1	.1	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0738.0	0738.1	.1	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0738.0	0738.1	.1	15.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0753.6	0753.6	.2	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0756.8	0756.8	.2	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0756.8	0756.8	.2	3.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
18	245	LEAR	8	S	0836.0	0836.1	.1	52.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0836.0	0836.1	.1	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0915.6	0915.6	.2	22.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0915.6	0915.6	.2	13.0			QL=6 ST=2 TYP=3
	113	POTS	8	S	0949.0	0949.4	.6	200.0	70.0		
	430	KRAK	42	SER	1001.5	1006.2	5.5	26.0			
	430	KRAK	8	S	1056.0	1056.0	.1	15.0			
	204	IZMI	8	S	1153.3	1153.4	.2	138.0	80.0		
	430	KRAK	8	S	1236.0	1236.0	.1	180.0			
	810	KRAK	42	SER	1236.0	1236.0	.7	105.0			
	536	ONDR	8	S	1337.0	1337.0	.1	11.0			
	2800	OTTA	240AR		1345.0	1350.0	35.0	7.0			
	3000	POTS	23	GRF	1346.5	1352.5		28.0			
	2800	OTTA	4	S/F	1347.0	1352.5	13.0	27.0	16.2		
	1470	POTS	23	GRF	1348.0	1351.7	12.0U	12.0			
	9400	HUAN	20	GRF	1349.7	1355.1	38.9	5.8	3.0		0
	2800	OTTA	29	PBI	1400.0	1400.0	49.0	12.4	6.2		
	2800	OTTA	20	GRF	1500.0	1545.0	140.0	5.0	2.0		
	2800	OTTA	20	GRF	1745.0	1835.0	145.0	5.2	2.6		
	2695	PENT	23	GRF	2050.0	2130.0	100.0	4.8	2.2		
	2695	PENT	3	S	2121.0	2122.5	9.0	38.0	9.4		
	9400	HUAN	1	S	2121.4	2122.2	2.8	10.1	5.1		0
	245	LEAR	8	S	2217.1	2217.1	.2	40.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2321.6	2321.6	.9	33.0			QL=6 ST=2 TYP=3
19	260	ONDR	44	NS	0700.0E		418.0D				
	127	TORN	43	NS	0800.0	1115.2	260.0	200.0	13.0		V1
	204	IZMI	43	NS	0840.0		200.0	80.0			
	200	GORK	44	NS	0951.0E		129.0D		5.0		
	100	GORK	44	NS	0952.0E		68.0D		10.0		
	245	PALE	43	NS	1944.0	2027.8	195.0	80.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2150.0	2153.6	126.5	11.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2150.0	2350.6	281.8	25.0			QL=6 ST=2 TYP=1
	2000	TYKW	20	GRF	0010.0	0030.0	120.0	2.0	1.0		
	3750	TYKW	21	GRF	0010.0	0030.0	150.0	5.0	2.0		
	245	PALE	8	S	0028.0	0028.1	.3	43.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0057.6	0057.8	.5	100.0			QL=6 ST=2 TYP=5
	3750	TYKW	20	GRF	0104.0	0128.0	90.0	4.0	2.0		
	2000	TYKW	21	GRF	0315.0	0340.0	130.0	2.0	1.0		
	3750	TYKW	21	GRF	0316.0	0329.5	130.0	6.0	3.0		
	9400	TYKW	20	GRF	0320.0	0342.0	75.0	4.0	2.0		
	2000	TYKW	5	S	0400.0	0400.6	2.0	4.0	1.0		
	3750	TYKW	5	S	0433.5	0434.5	3.5	2.5	1.0		
	3750	TYKW	5	S	0456.0	0457.8	6.0	3.0	1.0		
	3750	TYKW	5	S	0510.0	0513.4	15.0	4.0	1.5		
	2950	GORK	23	GRF	0539.0	0821.0	380.0D	31.0			
	2840	PEKG	5	S	0718.0	0731.3	23.0	20.8	5.5		
	3100	CRIM	21	GRF	0725.7	0733.0	94.0	10.0	3.0		
	6100	KISV	23	GRF	0726.7	0738.2	95.0	14.0			
	4995	LEAR	4	S/F	0726.8	0731.1	32.3	17.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0726.8	0732.1	29.5	17.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0726.8	0736.0	25.2	8.0			QL=6 ST=2 TYP=3
	650	GORK	21	GRF	0727.0		229.0	6.0			
	2695	LEAR	4	S/F	0727.0	0731.1	9.6	26.0			QL=6 ST=2 TYP=3
	9100	GORK	22	GRF	0727.0	0736.3	171.0	26.0			
	950	GORK	21	GRF	0727.0	0744.5	198.0	6.0			
	1415	LEAR	4	S/F	0727.1	0731.3	6.0	17.0			QL=6 ST=2 TYP=3
	3100	CRIM	1	S	0730.0	0731.1	3.0	17.0	6.0		
	1415	ATHN	4	S/F	0730.0	0731.1	2.5	5.0			QL=2 ST=2 TYP=3
	260	ONDR	46	C	0730.0	0833.0	110.0	880.0			
	2950	GORK	3	S	0730.2	0731.2	2.4	14.2			
	410	LEAR	4	S/F	0730.3	0731.8	15.2	4.0			QL=6 ST=2 TYP=3
	650	GORK	4	S/F	0730.5	0731.3	2.4	8.0	3.5		
	950	GORK	1	S	0730.5	0731.4	2.2	6.0			
	610	LEAR	4	S/F	0730.6	0731.3	14.9	13.0			QL=6 ST=2 TYP=3
	3000	IZMI	5	S	0731.0	0731.8	4.0	14.0	9.0		
	8800	ATHN	4	S/F	0731.1	0732.3	3.7	3.0			QL=2 ST=2 TYP=3
	245	LEAR	4	S/F	0731.3	0733.1	14.2	30.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	0732.3	0733.6	6.7	13.0			QL=2 ST=2 TYP=3
	4995	ATHN	4	S/F	0732.5	0733.3	6.5	23.0			QL=2 ST=2 TYP=3
	650	GORK	4	S/F	0734.9	0735.7	1.0	5.5	2.0		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
19	4995	LEAR	4	S/F	0817.6	0818.5	6.7	6.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0817.6	0818.8	6.7	9.0			QL=6 ST=2 TYP=3
	2950	GORK	1	S	0818.0	0819.0	1.8	5.2			
	15400	LEAR	8	S	0834.1	0834.3	.2	25.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0834.1	0834.3	.2	8.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0834.1	0834.3	.2	11.0			QL=6 ST=2 TYP=3
	430	KRAK	8	S	0835.3	0835.3	.1	35.0			
	430	KRAK	8	S	0840.2	0840.2	.1	23.0			
	2695	ATHN	4	S/F	0923.3	0933.6	15.7	13.0			QL=2 ST=3 TYP=3
	3100	BERN	3	S	0930.0	0932.8	12.0	21.0			
	2950	GORK	4	S/F	0930.8	0932.9	4.5	13.0			
	6100	KISV	21	GRF	0931.0	0932.2	16.0	10.0			
	3000	POTS	21	GRF	0931.0	0932.8	19.0	20.0			
	9500	POTS	20	GRF	0931.0	0938.6	19.0	10.0			
	3100	CRIM	3	S	0931.5	0933.5	13.0	19.0	6.0		
	2695	LEAR	8	S	0932.3	0932.6	1.2	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0932.3	0932.6	1.3	18.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	0932.5	0933.3	6.5	23.0			QL=2 ST=3 TYP=3
	260	ONDR	29	PBI	1020.0	1020.0	70.0	24.0	21.0		
	536	ONDR	45	C	1113.0	1113.0	2.0	11.0			
	430	KRAK	8	S	1113.2	1113.2	.2	24.0			
	234	POTS	42	SER	1113.8	1114.1	9.0	250.0	1.0		III
	204	IZMI	41	F	1113.8	1114.9	11.0	880.0			
	113	POTS	42	SER	1114.6	1114.9	8.9	200.0	1.0		III
	810	KRAK	8	S	1136.5	1136.5	.2	6.0			
	430	KRAK	8	S	1159.8	1159.8	.1	9.0			
	430	KRAK	42	SER	1305.2	1305.2	47.0	9.0			
	2800	OTTA	20	GRF	1335.0	1350.0	105.0	6.8	3.8		
	9400	HUAN	20	GRF	1349.7	1355.5	19.5	5.6	2.9		0
	8800	SGMR	8	S	1752.5	1752.6	1.3	39.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1752.6	1752.6	.4	31.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1752.6	1752.6	1.2	46.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1754.3	1754.3	.3	20.0			QL=6 ST=2 TYP=3
	2800	OTTA	8	S	1835.0	1835.2	.6	3.8			
	9400	HUAN	21	GRF	2014.6	2019.8	25.3	3.2	1.3		0
	9400	HUAN	1	S	2031.4	2031.8	.8	6.4	2.6		0
	200	HIRA	42	SER	2309.0	2315.5	10.0	1200.0			0
	245	LEAR	49	GB	2314.8	2315.3	2.2	1800.0			QL=6 ST=2 TYP=6
	245	PALE	49	GB	2314.8	2315.3	1.2	2000.0			QL=6 ST=2 TYP=6
	610	LEAR	4	S/F	2314.8	2315.8	3.5	9.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2314.8	2315.8	1.5	6.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	2314.8	2315.8	2.2	11.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	2314.8	2315.8	1.8	9.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	2315.0	2315.7	5.0	8.0	3.0		
	2000	TYKW	5	S	2315.0	2315.7	2.0	5.0	1.5		
	410	LEAR	47	GB	2318.6	2318.8	1.2	139.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	2318.6	2318.8	1.2	36.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	2318.6	2318.8	.5	180.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	2318.6	2318.8	1.2	6.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	2318.6	2318.8	1.2	4.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	2337.0	2339.2	4.5	2.0	.7		
	1000	TYKW	45	C	2338.0	2338.5	2.0	21.0	5.0		
	245	LEAR	8	S	2338.1	2338.6	.7	7.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2338.1	2338.6	.7	9.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	2338.3	2338.8	.5	32.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	2339.0	2339.6	2.0	9.0	1.5		
	8800	LEAR	4	S/F	2345.0	2345.6	3.3	31.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	2345.3	2345.7	2.5	10.0	3.0		
	8800	PALE	8	S	2345.5	2345.6	.6	20.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2350.5	2350.6	.3	29.0			QL=6 ST=2 TYP=3
20	200	GORK	43	NS	0720.0		259.0D		5.0		
	260	ONDR	44	NS	0807.0E		328.0D				
	245	SGMR	43	NS	1204.0	1654.6	530.0D	110.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2118.0E	0130.0	605.0D	250.0	85.0		WR
	100	HIRA	44	NS	2118.0E	0205.0	605.0D	1400.0	380.0		MR
	245	LEAR	43	NS	2150.0	0237.3	759.0D	410.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		88.0		
	410	LEAR	43	NS	2316.3	0547.3	672.7D	24.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0004.8	0005.0	.3	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0004.8	0005.0	.3	11.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
20	3750	TYKW	21	GRF	0018.0	0024.0	90.0	6.0	1.5		
	9400	TYKW	5	S	0024.5	0025.0	3.5	4.0	1.5		
	1000	TYKW	5	S	0049.5	0049.7	.5	3.0	1.0		
	2000	TYKW	20	GRF	0050.0	0056.0	55.0	3.0	1.5		
	3750	TYKW	20	GRF	0050.0	0056.0	40.0	3.0	1.5		
	245	LEAR	8	S	0115.1	0115.1	.2	19.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0115.1	0115.1	.2	6.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0121.6	0121.6	.2	10.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0124.0	0124.3	1.5	3.0	1.0		
	8800	PALE	8	S	0129.0	0129.1	.3	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0138.6	0138.6	.2	7.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0147.3	0148.3	1.7	10.0			QL=6 ST=2 TYP=3
	2000	TYKW	21	GRF	0155.0	0255.0	190.0	4.0	2.0		
	3750	TYKW	28	PRE	0158.0	0207.0	9.0	4.0	2.0		
	9400	TYKW	28	PRE	0201.0	0209.0	8.0	6.0	2.0		
	4995	LEAR	47	GB	0202.5	0213.8	22.6	66.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0203.8	0214.0	25.5	69.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0204.8	0215.5	18.8	33.0			QL=6 ST=2 TYP=3
	3750	TYKW	45	C	0207.0	0213.9	16.0	55.0	26.0		
	2000	TYKW	45	C	0208.0	0216.2	14.0	14.0	6.0		
	2840	PEKG	45	C	0208.0	0214.0	16.0	31.5	5.6		
	15400	LEAR	4	S/F	0208.1	0214.0	13.5	30.0			QL=6 ST=2 TYP=3
	1415	LEAR	20	GRF	0208.3	0216.1	12.0	7.0			QL=6 ST=3 TYP=2
	9400	TYKW	45	C	0209.0	0214.0	12.0	63.0	27.0		
	17000	NOBE	20	GRF	0210.5	0213.9	10.0	19.0			0
	8800	PALE	47	GB	0212.1	0213.6	5.0	58.0			QL=6 ST=2 TYP=5
	4995	PALE	4	S/F	0212.1	0213.6	5.0	42.0			QL=6 ST=2 TYP=3
	15400	PALE	4	S/F	0212.8	0213.6	3.5	41.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	0221.0		60.0	13.0	6.0		
	3750	TYKW	29	PBI	0223.0		50.0	9.0	5.0		
	410	PALE	8	S	0230.1	0230.3	.2	28.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0305.3	0306.3	1.5	19.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0308.8	0309.0	.5	16.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	0326.0	0339.0	115.0	7.0	3.0		
	2000	TYKW	20	GRF	0334.0	0339.0	65.0	4.0	1.5		
	9400	TYKW	5	S	0408.5	0409.2	1.5	6.0	3.0		
	9400	TYKW	29	PBI	0410.0		10.0	3.0	1.5		
	3750	TYKW	20	GRF	0415.0	0425.0	45.0	2.0	1.0		
	9395	PEKG	45	C	0525.0	0530.3	7.0	46.8	10.5		
	9400	TYKW	45	C	0528.0	0530.3	12.0	40.0	14.0		
	3750	TYKW	45	C	0529.0	0535.3	12.0	13.0	8.0		
	8800	LEAR	4	S/F	0529.1	0530.3	17.2	44.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0529.5	0531.1	16.8	33.0			QL=6 ST=2 TYP=3
	9395	PEKG	29	PBI	0537.0		17.0	15.6	9.6		
	9400	TYKW	30	PBI	0540.0		90.0	12.0	6.0		
	245	LEAR	8	S	0540.8	0541.0	.3	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0540.8	0541.0	.3	8.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0540.8	0541.0	.3	5.0			QL=6 ST=2 TYP=3
	3750	TYKW	30	PBI	0541.0		55.0	6.0	3.0		
	3750	TYKW	5	S	0621.0	0621.7	2.0	6.0	2.0		
	2000	TYKW	5	S	0621.0	0621.7	2.0	3.0	1.0		
	245	LEAR	47	GB	0658.1	0658.3	.2	57.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0658.1	0658.3	.2	11.0			QL=6 ST=2 TYP=3
	6100	KISV	2	S/F	0732.7	0733.6	1.5	4.0			
	6100	KISV	20	GRF	0746.0	0801.5	35.0	9.0			
	430	KRAK	42	SER	0810.8	0911.7	119.0	33.0			
	245	LEAR	8	S	0815.3	0815.3	.2	45.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0815.3	0815.3	.2	7.0			QL=6 ST=2 TYP=3
	6100	KISV			0828.5	0834.8		11.0			
	6100	KISV	45	C	0828.5	0836.4	17.0	13.0			
	9100	GORK	20	GRF	0831.1	0836.4	14.2	13.0			
	245	LEAR	8	S	0854.0	0854.1	.1	15.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0854.0	0854.1	.1	7.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0913.5	0913.6	.1	25.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0913.5	0913.6	.1	18.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0916.8	0917.0	.8	59.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0916.8	0917.0	.3	6.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0937.8	0938.0	.3	6.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0937.8	0938.0	.3	24.0			QL=6 ST=2 TYP=3
	2950	GORK	21	GRF	1000.0	1020.0	77.0	31.0			
	808	ONDR	45	C	1001.0		9.0		24.0		

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

NOVEMBER 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m² Hz)	Flux Density Mean	Int	Remarks
20	808	ONDR			1001.0	1002.0		52.0			
	808	ONDR			1001.0	1004.0		17.0			
	808	ONDR			1001.0	1005.5		19.0			
	808	ONDR			1001.0	1009.5		12.0			
	5200	BERN	4	S/F	1009.5	1012.1	60.0	312.0			
	3100	BERN	4	S/F	1009.5	1012.1	60.0	155.0			
	9100	GORK	4	S/F	1009.5	1012.3	8.3	39.0			
	9100	GORK	29	PBI	1009.5	1018.0	60.4	48.0			
	2650	DWIN	45	C	1010.0	1013.0	10.0				
	8400	BERN	3	S	1010.0	1012.3	60.0	439.0			
	9500	POTS	45	C	1010.0	1012.3	70.0	380.0			
	1470	POTS	45	C	1010.0	1013.2	30.0	170.0			
	650	GORK	28	PRE	1010.2	1010.5	.6	10.5			
	6100	KISV	46	C	1010.2	1012.4	10.5	235.0			
	6100	KISV			1010.2	1013.0		215.0			
	6100	KISV			1010.2	1014.3		155.0			
	950	GORK	28	PRE	1010.3	1010.5	.4	18.0			
	2950	GORK	45	C	1010.6	1012.0	8.4	128.0			
	2950	GORK			1010.6	1015.1		81.0			
	3000	IZMI	7	C	1010.8	1012.0	11.0	126.0	60.0		
	4995	LEAR	47	GB	1010.8	1012.1	9.7	200.0			QL=6 ST=2 TYP=5
	19600	BERN	3	S	1011.0	1012.3	60.0	88.0			
	2695	LEAR	47	GB	1011.0	1013.0	10.0	130.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	1011.1	1012.3	8.7	370.0			QL=5 ST=2 TYP=5
	650	GORK	4	S/F	1011.2	1015.3	8.2	67.0			
	650	GORK	29	PBI	1011.2	1019.4	10.0	7.0			
	950	GORK	4	S/F	1011.3	1012.2	8.4	93.0			
	950	GORK	29	PBI	1011.3	1019.8	12.2	4.8			
	536	ONDR	45	C	1011.5		8.5		29.0		
	536	ONDR			1011.5	1012.5		29.0			
	35000	BERN	3	S	1011.5	1012.9	60.0	55.0			
	536	ONDR			1011.5	1013.5		21.0			
	536	ONDR			1011.5	1016.5		43.0			
	536	ONDR			1011.5	1018.5		8.0			
	15400	LEAR	47	GB	1011.6	1012.3	7.9	139.0			QL=5 ST=2 TYP=5
	1415	LEAR	47	GB	1011.6	1013.1	6.7	200.0			QL=6 ST=2 TYP=5
	810	KRAK	4	S/F	1011.7	1015.6	8.0	42.0	18.0		
	430	KRAK	4	S/F	1012.0	1015.8	7.5	116.0	17.0		
	4995	ATHN	47	GB	1012.1E	1013.0	13.4D	440.0			QL=2 ST=3 TYP=5
	2695	ATHN	47	GB	1012.1E	1013.0	12.5D	160.0			QL=2 ST=3 TYP=5
	1415	ATHN	47	GB	1012.1E	1013.3	11.4D	169.0			QL=2 ST=3 TYP=5
	8800	ATHN	47	GB	1012.3E	1013.3	9.0D	239.0			QL=2 ST=3 TYP=5
	810	KRAK	8	S	1012.5	1012.5	.2	94.0			
	610	LEAR	47	GB	1012.6	1014.1	5.7	30.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	1013.0	1013.8	5.3	20.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	1015.5	1015.6	1.0	17.0			QL=6 ST=2 TYP=3
	536	ONDR	29	PBI	1020.0	1020.0	10.0	3.0	1.0		
	6100	KISV	29	PBI	1020.5	1020.5	22.0	25.0			
	810	KRAK	42	SER	1041.0	1049.5	8.5	13.0			
	430	KRAK	42	SER	1041.0	1132.0	142.0	58.0			
	9400	HUAN	1	S	1253.2	1254.5	2.5	5.6	1.6		0
	2800	OTTA	20	GRF	1425.0	1435.0	80.0	5.4	3.7		
	9400	HUAN	23	GRF	1431.1	1447.2	48.1	7.1	4.6		0
	9400	HUAN	1	S	1501.7	1502.0	2.0	9.9	4.2		0
	9400	HUAN	20	GRF	1656.0	1709.2U	45.1	14.1	6.3		R
	2800	OTTA	20	GRF	1703.0	1705.0	30.0	4.0	2.0		
	245	PALE	47	GB	1807.0	1807.1	.3	50.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1833.5	1833.6	.3	50.0			QL=6 ST=2 TYP=5
	9400	HUAN	20	GRF	1850.2	1858.0	15.3	5.6	2.6		0
	2800	OTTA	20	GRF	1855.0	1900.0	40.0	2.8	1.4		
	9400	HUAN	20	GRF	1925.5	1932.0	14.9	4.2	2.0		0
	245	PALE	47	GB	1948.1	1948.6	1.0	66.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1954.1	1954.6	.9	180.0			QL=6 ST=2 TYP=5
	2695	PENT	240	R	2002.0	2006.0	4.0	3.2	1.4		
	9400	HUAN	21	GRF	2011.7	2031.0	25.6	5.6	2.3		R
	245	PALE	8	S	2014.6	2014.8	.5	47.0			QL=6 ST=2 TYP=3
	9400	HUAN	1	S	2028.2	2029.1	1.9	9.9	6.7		0
	2695	PENT	240	R	2037.0	2042.0	5.0	3.2	1.6		
	2695	PENT	1	S	2054.0	2058.0	10.0	3.8	1.9		
	245	PALE	8	S	2059.1	2100.0	.9D	48.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2104.3	2104.3	.3	43.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 −22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
20	245	PALE	8	S	2125.5	2125.6	.3	17.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2132.0	2132.6	.8	32.0			QL=6 ST=2 TYP=3
	2695	PENT			2150.0	2255.0	70.0D	52.0			
	9400	HUAN	1	S	2200.0	2200.6	1.7	14.1	4.9		0
	8800	LEAR	47	GB	2212.3	2223.5	37.2	29.0			QL=5 ST=2 TYP=5
	15400	LEAR	4	S/F	2212.3	2243.6	32.2	16.0			QL=5 ST=2 TYP=3
	245	LEAR	47	GB	2212.6	2217.0	36.9	100.0			QL=5 ST=2 TYP=5
	410	LEAR	4	S/F	2212.8	2223.8	36.7	23.0			QL=5 ST=2 TYP=3
	2695	LEAR	4	S/F	2213.1	2224.0	25.9	24.0			QL=5 ST=2 TYP=3
	4995	LEAR	47	GB	2213.5	2225.3	24.8	22.0			QL=5 ST=2 TYP=5
	610	LEAR	4	S/F	2214.0	2223.3	35.5	39.0			QL=5 ST=2 TYP=3
	1000	TYKW			2215.0	2223.6		32.0			
	2000	TYKW			2215.0	2230.7		36.0			
	9400	TYKW	21	GRF	2215.0	2231.0	255.0	14.0	6.0		
	2000	TYKW			2215.0	2255.1		23.0			
	1000	TYKW			2215.0	2256.6		39.0			
	1000	TYKW	45	C	2215.0	2316.1	95.0	45.0	15.0		
	2000	TYKW	45	C	2215.0	2319.5	75.0	39.0	15.0		
	1415	LEAR	4	S/F	2215.6	2223.6	20.5	23.0			QL=5 ST=2 TYP=3
	3750	TYKW			2217.0	2224.7		17.0			
	3750	TYKW	45	C	2217.0	2235.5	25.0	19.0	9.0		
	3750	TYKW	21	GRF	2217.0	2250.0	275.0	11.0	6.0		
	500	HIRA	46	C	2222.0	2320.4	88.0	90.0	30.0		ML
	610	PALE	4	S/F	2222.6	2223.3	3.0	38.0			QL=6 ST=2 TYP=3
	1415	PALE	20	GRF	2222.6	2225.1	13.2	28.0			QL=6 ST=2 TYP=2
	245	PALE	8	S	2223.3	2223.6	.5	27.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	2224.0	2226.2	5.0	14.0	4.0		
	4995	PALE	8	S	2224.3	2224.5	.3	13.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	2224.6	2225.1	2.5	28.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2227.5	2227.6	.3	19.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	2233.5	2235.3	3.5	31.0	8.0		
	4995	PALE	8	S	2234.5	2235.5	2.0	48.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2234.5	2235.5	2.0	42.0			QL=6 ST=2 TYP=3
	4995	LEAR	47	GB	2235.3	2235.3	41.0	50.0			QL=6 ST=3 TYP=5
	8800	LEAR	47	GB	2235.3	2235.3	41.0	59.0			QL=6 ST=3 TYP=5
	1415	LEAR	4	S/F	2236.1	2306.3	40.2	17.0			QL=6 ST=3 TYP=3
	2695	LEAR	4	S/F	2239.0	2255.0	37.3	40.0			QL=6 ST=3 TYP=3
	610	LEAR	47	GB	2249.5	2309.5	26.8	87.0			QL=6 ST=3 TYP=5
	245	PALE	47	GB	2249.6	2249.6	.4	110.0			QL=6 ST=2 TYP=5
	410	PALE	8	S	2251.3	2251.6	2.0	17.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	2253.0	2255.0	3.0	30.0	13.0		
	410	PALE	47	GB	2253.3	2254.8	8.7	36.0			QL=6 ST=2 TYP=5
	9400	TYKW	20	GRF	2254.0	2305.0	40.0	4.0	2.5		
	4995	PALE	8	S	2254.6	2255.0	1.0	22.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	2256.0		55.0	10.0	5.0		
	610	PALE	4	S/F	2256.1	2256.6	5.9	26.0			QL=6 ST=2 TYP=3
	610	PALE	47	GB	2302.0	2303.6	6.0	63.0			QL=6 ST=2 TYP=5
	410	PALE	4	S/F	2302.0	2304.6	3.5	48.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2302.6	2302.8	.4	11.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2304.5	2304.6	.6	130.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	2311.3	2317.1	33.2	130.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	2316.3	2316.8	28.2	130.0			QL=6 ST=2 TYP=5
	8800	LEAR	4	S/F	2316.3	2316.8	28.2	13.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	2316.3	2320.0	28.2	87.0			QL=6 ST=2 TYP=5
	1415	LEAR	20	GRF	2316.3	2321.1	28.2	29.0			QL=6 ST=2 TYP=2
	2695	LEAR	4	S/F	2316.3	2321.5	28.2	40.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	2316.3	2321.5	28.2	50.0			QL=6 ST=3 TYP=3
	245	PALE	47	GB	2321.5	2321.6	.3	380.0			QL=6 ST=2 TYP=5
	2000	TYKW	30	PBI	2330.0		200.0	10.0	4.0		
	245	PALE	47	GB	2336.8	2337.0		98.0			QL=6 ST=3 TYP=5
	15400	LEAR	4	S/F	2337.0	2337.1	7.5	16.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	2337.8	2338.3		22.0			QL=6 ST=3 TYP=3
	2000	TYKW	5	S	2338.0	2340.2	6.0	5.0	1.5		
	8800	PALE	47	GB	2338.8	2338.8		119.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	2344.5	0011.0	59.3	50.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	2344.5	2344.6	4.8	110.0			QL=6 ST=2 TYP=5
	610	LEAR	4	S/F	2344.5	2344.6	12.6	13.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	2344.5	2346.8	14.5	42.0			QL=6 ST=2 TYP=3
	1000	TYKW	29	PBI	2350.0		160.0	8.0	4.0		
21	410	LEAR	43	NS	0310.8	0317.3	438.2D	13.0			QL=6 ST=2 TYP=1

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
21	245	LEAR	43	NS	0311.1	0543.0	437.9D	189.0			QL=6 ST=2 TYP=1
	200	GORK	44	NS	0539.0E		363.0D		15.0		
	100	GORK	44	NS	0600.0E		333.0D		5.0		
	204	IZMI	43	NS	0700.0		300.0	23.0			
	127	TORN	44	NS	0720.0E	1116.4	420.0D	200.0	11.0		VO
	260	ONDR	44	NS	0805.0E		355.0D				
	245	SGMR	43	NS	1206.0	1323.5	526.0D	100.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2120.0E	2318.0	605.0D	10.0	5.0		WL
	245	PALE	43	NS	2200.0	0219.8	285.0	200.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2229.8	2230.3	.8	25.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		4.0		
	410	PALE	43	NS	2310.0	2316.8	215.0	84.0			QL=6 ST=2 TYP=1
	9400	TYKW	5	S	0001.0	0001.5	3.0	22.0	6.0		
	8800	PALE	8	S	0001.3	0001.5	.7	24.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	0001.8	0002.5	.8	100.0			QL=6 ST=2 TYP=5
	610	PALE	8	S	0002.8	0002.8	.3	27.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0004.0	0004.8	2.0	2.0	.7		
	15400	PALE	8	S	0018.1	0018.3	.2	28.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	0040.0	0049.5	120.0	6.0	3.0		
	9400	TYKW	45	C	0044.0	0049.6	9.0	9.0	6.0		
	9400	TYKW	30	PBI	0053.0		35.0	5.0	2.0		
	9400	TYKW	45	C	0056.0	0106.2	18.0	12.0	6.0		
	245	PALE	47	GB	0057.0	0058.6	2.1	110.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0102.0	0102.8	1.8	189.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	0105.0	0107.5	8.0	2.5	1.0		
	9400	TYKW	29	PBI	0114.0		12.0	6.0	3.0		
	9400	TYKW	21	GRF	0135.0	0201.0	55.0	8.0	4.0		
	9400	TYKW	45	C	0135.5	0136.2	6.5	14.0	6.0		
	3750	TYKW	5	S	0135.5	0136.2	1.5	4.0	2.5		
	4995	LEAR	8	S	0135.6	0136.3	.9	17.0			QL=6 ST=3 TYP=3
	8800	LEAR	8	S	0135.6	0136.3	.9	28.0			QL=6 ST=3 TYP=3
	3750	TYKW	29	PBI	0137.0		27.0	2.0	1.0		
	9400	TYKW	29	PBI	0142.0		6.0	3.0	1.5		
	9400	TYKW	45	C	0202.0	0207.4	8.0	11.0	4.0		
	4995	LEAR	4	S/F	0202.6	0207.1	7.7	13.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0205.5	0207.6	6.3	15.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0205.5	0207.6	4.6	15.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0206.0	0207.4	4.0	2.5	.7		
	9400	TYKW	29	PBI	0210.0		15.0	4.0	2.5		
	500	HIRA	45	C	0212.0	0213.4	3.0	10.0	4.0		O
	9400	TYKW	32	ABS	0256.0	0313.0	35.0	-5.0	-2.0		
	3750	TYKW	31	ABS	0305.0	0313.0	20.0	-3.0	-1.5		
	1000	TYKW	5	S	0318.4	0318.7	.8	8.0	2.0		
	2000	TYKW	21	GRF	0325.0	0350.0	65.0	2.0	1.0		
	3750	TYKW	20	GRF	0327.0	0338.0	55.0	6.0	3.0		
	2000	TYKW	5	S	0328.0	0328.7	2.0	2.0	.5		
	1000	TYKW	45	C	0334.6	0334.8	1.0	5.0	1.5		
	9400	TYKW	21	GRF	0335.0	0347.0	45.0	10.0	5.0		
	9400	TYKW	45	C	0400.0	0402.3	10.0	13.0	5.0		
	2000	TYKW	21	GRF	0435.0	0453.0	45.0	2.0	1.0		
	3750	TYKW	21	GRF	0435.0	0454.0	65.0	7.0	3.0		
	9400	TYKW	21	GRF	0440.0	0510.0	55.0	14.0	6.0		
	3750	TYKW	5	S	0511.0	0511.3	2.0	5.0	1.5		
	2000	TYKW	5	S	0511.0	0511.4	2.0	4.0	1.0		
	1000	TYKW	5	S	0511.0	0511.5	2.0	3.0	1.0		
	9400	TYKW	45	C	0526.5	0528.9	4.0	10.0	3.0		
	9400	TYKW	28	PRE	0543.0	0603.0	20.0	8.0	4.0		
	3750	TYKW	28	PRE	0550.0	0603.0	13.0	7.0	3.0D		
	4995	ATHN	20	GRF	0555.1	0609.8	46.0	53.0			QL=2 ST=2 TYP=2
	8800	ATHN	20	GRF	0558.3	0612.1	50.7	26.0			QL=2 ST=2 TYP=2
	2000	TYKW	45	C	0559.0	0613.9	53.0	55.0	22.0		
	2950	GORK	23	GRF	0559.5	0606.5	318.0D	30.0			
	3750	TYKW	45	C	0603.0	0608.7	17.0	47.0	27.0		
	9400	TYKW	45	C	0603.0	0611.2	15.0	38.0	22.0		
	1000	TYKW	45	C	0603.0	0615.4U	50.0U	21.0U	6.0U		
	6100	KISV	21	GRF	0603.0	0608.8	15.0D	27.0			
	2695	LEAR	47	GB	0603.1	0606.3	28.7	42.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0603.3	0607.0	28.5	39.0			QL=6 ST=2 TYP=3
	1415	ATHN	20	GRF	0603.6	0615.6	52.7	34.0			QL=2 ST=2 TYP=2
	2695	ATHN	20	GRF	0603.8	0616.1	37.3	50.0			QL=2 ST=2 TYP=2
	9100	GORK	23	GRF	0604.0	1026.0	266.0D	60.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
21	4995	LEAR	4	S/F	0604.6	0608.3	25.4	16.0			QL=6 ST=2 TYP=3
	9395	PEKG	45	C	0608.0	0611.2	6.0	26.5	7.3		
	8800	LEAR	4	S/F	0608.3	0608.3	21.7	11.0			QL=5 ST=3 TYP=3
	2950	GORK	1	S	0608.3	0608.8	1.2	13.1	6.0		
	9100	GORK	45	C	0608.3	0608.8	3.9	14.0			
	9100	GORK			0608.3	0619.2		16.0			
	15400	LEAR	4	S/F	0611.0	0611.1	19.0	13.0			QL=6 ST=2 TYP=3
	2950	GORK	3	S	0611.5	0614.0	6.2	19.7			
	9400	TYKW	29	PBI	0618.0		60.0D	22.0	17.0D		
	3750	TYKW	29	PBI	0620.0		50.0D	22.0	15.0D		
	950	GORK	20	GRF	0640.2	0645.0	13.7	13.0	5.5		
	2000	TYKW	29	PBI	0652.0		30.0D	10.0D	7.0		
	650	GORK	4	S/F	0744.1	0745.1	7.0	7.0			
	410	LEAR	8	S	0746.0	0746.1	.3	44.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0746.8	0747.0	.8	189.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0746.8	0747.0	.5	36.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0802.5	0802.6	.1	40.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0807.8	0808.0	.3	52.0			QL=6 ST=2 TYP=5
	6100	KISV	20	GRF	0810.0	0816.0	13.0	6.0			
	430	KRAK	42	SER	0825.0	0856.7	35.0	132.0			
	245	LEAR	8	S	0826.3	0826.3	.2	30.0			QL=6 ST=2 TYP=3
	6100	KISV	1	S	0847.8	0848.6	2.5	5.0			
	9500	POTS	22	GRF	0900.0	0903.0	35.0	17.0			
	410	LEAR	8	S	0900.1	0900.3	.2	9.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0900.1	0900.3	.2	11.0			QL=6 ST=2 TYP=3
	9100	GORK	2	S/F	0902.2	0902.8	3.6	15.0			
	245	LEAR	8	S	0902.6	0902.8	.2	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0902.6	0902.8	.2	11.0			QL=6 ST=2 TYP=3
	6100	KISV	21	GRF	0921.3	0921.9	18.0	12.0			
	430	KRAK	8	S	0957.5	0957.5	.1	30.0			
	9500	POTS	21	GRF	1010.0	1012.0	50.0	48.0			
	113	POTS	4	S/F	1011.7	1012.1	.7	100.0	25.0		III
	11800	BERN	3	S	1019.7	1020.7	12.0	46.0			
	8400	BERN	3	S	1019.7	1020.7	12.0	50.0			
	5200	BERN	3	S	1019.7	1020.8	12.0	41.0			
	6100	KISV	4	S/F	1019.7	1022.0	8.0	32.0			
	9100	GORK	3	S	1019.9	1020.7	6.0	38.0			
	6100	KISV	29	PBI	1026.0	1026.0	28.0	17.0			
	810	KRAK	8	S	1030.5	1030.5	.1	9.0			
	430	KRAK	8	S	1030.7	1030.7	.1	30.0			
	8400	BERN	3	S	1054.5	1054.9	7.0	21.0			
	11800	BERN	3	S	1054.5	1054.9	7.0	47.0			
	19600	BERN	3	S	1054.5	1054.9	7.0	33.0			
	810	KRAK	8	S	1117.3	1117.5	.2	9.0			
	430	KRAK	8	S	1117.5	1117.5	.2	27.0			
	6100	KISV	21	GRF	1124.0	1127.7	15.0	10.0			
	430	KRAK	8	S	1146.7	1146.7	.1	21.0			
	9500	POTS	4	S/F	1154.0	1155.0	1.0	29.0			
	9400	HUAN	3	S	1154.4	1154.8	2.6	26.9	11.3		R
	9400	HUAN	29	PBI	1157.0	1157.0	17.5	5.1	1.3		0
	9400	HUAN	20	GRF	1227.7	1232.2	12.1	5.8	2.6		R
	1415	SGMR	8	S	1257.3	1257.5	1.0	28.0			QL=6 ST=2 TYP=3
	9400	HUAN	4	S/F	1306.4	1311.8	7.3	37.1	22.0		R
	9500	POTS	23	GRF	1307.5	1311.5	20.0	33.0			
	8800	SGMR	47	GB	1308.6	1309.3	12.5	50.0			QL=6 ST=2 TYP=5
	3100	BERN	21	GRF	1308.8	1309.2	30.0	7.0			
	8400	BERN	21	GRF	1308.8	1309.2	30.0	34.0			
	5200	BERN	21	GRF	1308.8	1311.5	30.0	37.0			
	15400	SGMR	47	GB	1309.1	1311.3	6.7	50.0			QL=6 ST=2 TYP=5
	4995	SGMR	4	S/F	1309.1	1311.3	12.0	39.0			QL=6 ST=2 TYP=3
	430	KRAK	42	SER	1309.8	1309.8	23.5	50.0			
	9400	HUAN	29	PBI	1313.7	1313.7	29.3	21.8	9.5		R
	4995	ATHN	47	GB	1414.8	1419.1	18.5	75.0			QL=2 ST=2 TYP=5
	8800	ATHN	4	S/F	1415.0	1419.3	17.5	46.0			QL=2 ST=2 TYP=3
	9400	HUAN	3	S	1416.0	1419.0	6.7	66.6	33.2		R
	8400	BERN	21	GRF	1416.0	1419.1	20.0	79.0			
	11800	BERN	21	GRF	1416.0	1419.1	20.0	64.0			
	5200	BERN	21	GRF	1416.0	1419.1	20.0	122.0			
	4995	SGMR	47	GB	1416.1	1416.6	16.5	27.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1418.0	1418.5	9.8	20.0			QL=6 ST=2 TYP=5
	2800	OTTA	1	S	1418.5	1419.2	6.0	7.8	2.6		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m² Hz)	Flux Density Mean (10^{-22} W/m² Hz)	Int	Remarks
21	15400	SGMR	47	GB	1418.8	1420.0	5.5	56.0			QL=6 ST=2 TYP=5
	9400	HUAN	30	PBI	1422.7	1422.7	55.3	41.0	20.5		R
	2800	OTTA	20	GRF	1430.0	1450.0	60.0	7.0	3.5		
	9400	HUAN	1	S	1444.2	1444.8	1.6	6.4	3.8		O
	9400	HUAN	1	S	1600.1	1601.2	1.9	10.2	8.2		O
	9400	HUAN	29	PBI	1602.0	1602.0	12.2	6.4	4.9		O
	2800	OTTA	22	GRF	1625.0	1655.0	60.0	6.2	3.3		
	9400	HUAN	21	GRF	1629.7	1650.3	52.8	7.7	3.6		R
	9400	HUAN	1	S	1701.4	1702.5	3.5	19.2	7.4		R
	2800	OTTA	21	GRF	1735.0	1755.0	115.0	7.8	5.6		
	9400	HUAN	23	GRF	1741.7	1846.4U	92.9	20.5	11.3		R
	9400	HUAN	1	S	1800.5	1801.3	2.8	9.0	4.9		R
	2800	OTTA	21	GRF	1835.0	1838.0	25.0	3.2			
	9400	HUAN	4	S/F	1841.2	1842.2	4.0	28.2	17.0		R
	2800	OTTA	1	S	1841.5	1842.2	7.0	6.4	2.8		
	4995	PALE	8	S	1841.6	1842.1	1.0	31.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1841.6	1842.1	1.0	39.0			QL=6 ST=2 TYP=3
	4995	SGMR	4	S/F	1841.6	1842.3	2.2	26.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1842.1	1842.3	1.2	24.0			QL=6 ST=2 TYP=3
	2800	OTTA	20	GRF	1940.0	1945.0	35.0	3.8	2.0		
	9400	HUAN	20	GRF	1940.6	1947.2	39.0	12.8	5.6		O
	9400	HUAN	4	S/F	2034.9	2035.8	2.1	25.6	13.4		R
	15400	PALE	8	S	2035.3	2036.0	1.3	33.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	2035.8	2036.0	.3	29.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	2036.7	2036.7	16.6	2.6	1.0		R
	2695	PENT	1	S	2134.8	2135.0	1.5	7.4	3.6		
	3750	TYKW	21	GRF	2240.0	2255.0	55.0	5.0	2.0		
	9400	TYKW	20	GRF	2310.0	2321.0	30.0	8.0	3.0		
	3750	TYKW	5	S	2318.5	2319.7	10.0	6.0	2.0		
	9400	TYKW	21	GRF	2350.0	0032.0	170.0	13.0	6.0		RAIN
	3750	TYKW	21	GRF	2355.0	0016.0	175.0	12.0	5.0		
22	200	GORK	44	NS	0542.0E		318.0D		5.0		
	127	TORN	44	NS	0720.0E		420.0D		10.0		V1
	260	ONDR	44	NS	0815.0E		285.0D				
	33	UPIC	43	NS	0926.6		318.4D				
	29	UPIC	43	NS	1016.7		189.0				
	245	SGMR	43	NS	1410.5	1715.1	401.5D	300.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1709.1	1712.6	222.9D	54.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1712.0	1738.0	610.0D	180.0			QL=6 ST=2 TYP=1
	100	HIRA	44	NS	2120.0E	0105.0	605.0D	780.0	10.0		WL
	200	HIRA	44	NS	2120.0E	0542.0	605.0D	45.0	10.0		ML
	245	LEAR	43	NS	2149.0	0844.5	762.0D	260.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		7.0		
	2000	TYKW	21	GRF	0010.0	0102.0	160.0	4.0	2.0		
	9400	TYKW	45	C	0013.0	0013.6	5.0	14.0	8.0		
	8800	LEAR	20	GRF	0013.1	0015.3	9.0	24.0			QL=6 ST=2 TYP=2
	15400	LEAR	20	GRF	0013.1	0015.8	9.0	16.0			QL=6 ST=2 TYP=2
	4995	LEAR	20	GRF	0013.1	0016.3	9.0	11.0			QL=6 ST=2 TYP=2
	9400	TYKW	29	PBI	0018.0		9.0	4.0	1.5		
	610	PALE	8	S	0040.1	0040.3	.4	13.0			QL=6 ST=2 TYP=3
	1000	TYKW	21	GRF	0045.0	0120.0	95.0	4.0	2.0		
	3750	TYKW	45	C	0046.0	0052.8	12.0	7.0	2.0		
	1000	TYKW	45	C	0046.0	0053.5	9.0	17.0	3.0		
	2000	TYKW	45	C	0047.0	0053.0	8.0	8.0	1.5		
	410	LEAR	8	S	0052.5	0053.3	1.6	13.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0052.6	0053.5	2.2	17.0			QL=6 ST=2 TYP=3
	3750	TYKW	45	C	0100.0	0102.0	10.0	3.0	1.5		
	410	LEAR	8	S	0122.0	0122.1	.5	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0125.0	0150.0	80.0	4.0	2.0		
	9400	TYKW	21	GRF	0127.0	0149.0	70.0	8.0	3.0		
	9400	TYKW	5	S	0127.5	0129.0	7.0	7.0	3.0		
	610	PALE	8	S	0307.6	0308.1		16.0			QL=6 ST=3 TYP=3
	610	PALE	8	S	0309.6	0310.3	1.4	19.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0309.6	0310.3	1.0	17.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	0310.0	0329.0	150.0	6.0	2.5		
	9400	TYKW	20	GRF	0310.0	0330.0	60.0U	6.0	3.0U		RAIN
	610	PALE	8	S	0313.8	0314.0	1.3	18.0			QL=6 ST=2 TYP=3
	610	PALE	8	S	0316.8	0317.3	1.0	18.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0338.5	0339.3	3.0	6.0	1.5		
	2000	TYKW	5	S	0348.0	0348.8	10.0	1.5	.5		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
22	2000	TYKW	21	GRF	0348.0	0445.0	120.0	3.0	1.5		
	3750	TYKW	21	GRF	0410.0	0435.0	85.0	4.0	2.0		
	9400	TYKW	45	C	0429.0	0431.8	9.0	15.0	8.0		
	8800	LEAR	8	S	0430.8	0431.8	2.0	19.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0431.6	0431.8	1.0	23.0			QL=6 ST=2 TYP=3
	9400	TYKW	30	PBI	0438.0		25.0U	4.0	2.0U		
	410	LEAR	8	S	0449.6	0449.6	1.0	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0450.0	0450.9	2.0	11.0	3.0		
	9400	TYKW	5	S	0450.5	0450.7	1.5U	11.0	4.0		RAIN
	4995	LEAR	8	S	0450.6	0450.6	1.7	13.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0450.6	0450.6	4.5	19.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0450.6	0450.8	2.9	10.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0450.8	0450.9	1.5	1.5	.5		
	3750	TYKW	29	PBI	0452.0		10.0	3.0	1.5		
	2950	GORK	21	GRF	0603.0E	0836.0	340.0D	11.6			
	9100	GORK	23	GRF	0619.6	0832.6	270.0	28.0			
	6100	KISV	21	GRF	0700.0	0724.6	40.0	22.0			
	200	GORK	41	F	0709.7	0716.9	29.7	30.0D			
	200	GORK			0709.7	0724.9		80.0			
	200	GORK			0709.7	0739.2		70.0			
	204	IZMI	42	SER	0710.0	0724.0	25.0	10000.0			
	650	GORK	23	GRF	0716.1	0836.0	230.0	4.0			
	113	POTS	42	SER	0717.0	0724.5	25.0	35000.0			III
	950	GORK	21	GRF	0717.1	0730.0	148.0	8.5			
	100	GORK	41	F	0722.6	0723.0U	16.0	120.0D			
	100	GORK			0722.6	0738.1		120.0D			
	245	LEAR	49	GB	0722.8	0724.3	3.3	4800.0			QL=6 ST=2 TYP=6
	650	GORK	4	S/F	0723.0	0724.6U	3.5	40.0D			
	410	LEAR	47	GB	0723.1	0724.6	2.5	80.0			QL=6 ST=2 TYP=5
	3100	CRIM	3	S	0723.3	0724.5	4.0	42.0	14.0		
	5200	BERN	3	S	0723.5	0724.6	3.0	47.0			
	3100	BERN	3	S	0723.5	0724.7	3.0	37.0			
	3000	IZMI	5	S	0723.5	0724.8	4.0	29.0	16.0		
	9100	GORK	2	S/F	0723.6	0724.0	1.4	18.0			
	950	GORK	4	S/F	0723.7	0724.5	4.3	82.0			
	2950	GORK	3	S	0723.9	0724.7	2.5	40.0			
	2695	LEAR	47	GB	0724.0	0724.6	2.6	58.0			QL=6 ST=2 TYP=5
	9395	PEKG	1	S	0724.0	0724.7	1.0	10.2	7.9		
	2840	PEKG	3	S	0724.0	0724.7	4.0	49.0	14.6		
	610	LEAR	47	GB	0724.1	0724.3	1.5	100.0			QL=6 ST=2 TYP=5
	1415	LEAR	4	S/F	0724.1	0724.3	2.5	44.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0724.5	0724.6	1.1	19.0			QL=6 ST=2 TYP=3
	650	GORK	3	S	0728.4	0729.7	2.8	9.5			
	234	POTS	4	S/F	0728.8	0729.0	.2	300.0	50.0		
	410	LEAR	4	S/F	0728.8	0729.6	5.8	30.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0729.1	0729.8	1.7	20.0			QL=6 ST=2 TYP=3
	950	GORK	8	S	0738.6	0738.7	.2	17.0			
	650	GORK	4	S/F	0738.6	0739.3U	.9	40.0D			
	610	LEAR	47	GB	0739.1	0739.1	1.2	200.0			QL=6 ST=2 TYP=5
	950	GORK	8	S	0739.1	0739.2	.4	20.0			
	1415	LEAR	8	S	0739.1	0739.3	1.2	11.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0739.1	0739.5	.9	75.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0739.1	0739.5	1.0	42.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0739.1	0739.5	1.0	16.0			QL=6 ST=2 TYP=3
	9100	GORK	1	S	0744.7	0745.9	1.2	15.0	1.0		
	430	KRAK	42	SER	0805.7	0826.0	27.5	115.0			
	200	GORK	41	F	0806.0	0806.1	51.0	30.0D			
	200	GORK			0806.0	0825.7		120.0D			
	200	GORK			0806.0	0832.3		120.0D			
	234	POTS	8	S	0816.4	0816.4	.7	2300.0	800.0		
	410	LEAR	4	S/F	0825.0	0825.3	2.8	22.0			QL=6 ST=2 TYP=3
	610	LEAR	4	S/F	0825.0	0825.3	2.8	25.0			QL=6 ST=2 TYP=3
	113	POTS	42	SER	0825.3	0832.1	8.8	1200.0	20.0		III
	245	LEAR	49	GB	0825.5	0825.6	2.3	1199.0			QL=6 ST=2 TYP=6
	204	IZMI	42	SER	0825.5	0832.0	8.5	7000.0			
	234	POTS	42	SER	0825.5	0832.4	7.5	2500.0	40.0		III
	100	GORK	41	F	0826.7	0827.2	6.1	130.0D			
	100	GORK			0826.7	0831.3		130.0D			
	650	GORK	4	S/F	0831.5	0832.5	4.5	14.5			
	245	LEAR	49	GB	0831.8	0832.3	1.7	1199.0			QL=6 ST=2 TYP=6
	610	LEAR	4	S/F	0831.8	0832.5	3.8	15.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

NOVEMBER 1982

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean (10^{-22} W/m^2 Hz)	Int	Remarks
22	2650	DWIN	1 S	0832.0	0833.0	2.0				
	6100	KISV	1 S	0832.0	0832.4	4.5	7.0			
	3000	IZMI	5 S	0832.0	0832.5	3.0	18.0	11.0		
	1470	POTS	3 S	0832.0	0832.6	8.0	11.0			
	3100	BERN	3 S	0832.0	0832.6	4.0	16.0			
	5200	BERN	3 S	0832.0	0832.6	4.0	14.0			
	410	LEAR	47 GB	0832.1	0832.1	1.2	110.0			QL=6 ST=2 TYP=5
	2950	GORK	3 S	0832.1	0832.5	3.0	12.8	6.4		
	950	GORK	5 S	0832.1	0832.5	3.5	18.5			
	2695	LEAR	8 S	0832.1	0833.0	2.0	22.0			QL=6 ST=2 TYP=3
	3100	CRIM	1 S	0832.1	0833.0	4.0	16.0	5.0		
	4995	LEAR	8 S	0832.3	0833.0	1.0	18.0			QL=6 ST=2 TYP=3
	8800	LEAR	8 S	0832.3	0833.0	1.8	21.0			QL=6 ST=2 TYP=3
	1415	LEAR	8 S	0832.5	0833.1	1.0	13.0			QL=6 ST=2 TYP=3
	430	KRAK	42 SER	0854.5	0927.0	50.5	340.0			
	430	KRAK		0854.5	0934.5		265.0			
	245	LEAR	47 GB	0900.1	0900.3	.7	85.0			QL=6 ST=2 TYP=5
	113	POTS	4 S/F	0900.2	0900.7	.7	2800.0	300.0		III
	234	POTS	4 S/F	0900.4	0900.4	.4	375.0	20.0		III
	3100	CRIM	1 S	0903.0	0903.8	2.0	14.0	4.0		
	3100	CRIM	1 S	0910.0	0910.2	1.0	8.0	3.0		
	100	GORK	8 S	0914.0	0914.3	.9	130.0D			
	245	LEAR	49 GB	0915.0	0915.1	1.3	880.0			QL=6 ST=2 TYP=6
	200	GORK	4 S/F	0915.0	0915.3	1.8	120.0D			
	113	POTS	42 SER	0915.0	0926.2	21.0	4600.0	50.0		III
	204	IZMI	42 SER	0915.0	0927.5	24.0	3500.0			
	127	TORN	8 S	0915.1	0915.5	1.0	3500.0	1800.0		
	234	POTS	42 SER	0915.1	0926.1	13.0	50000.0	200.0		III
	536	ONDR	40 F	0917.0	0924.5	33.0	32.0			
	100	GORK	46 C	0924.7	0925.0U	2.5	130.0D			
	100	GORK		0924.7	0926.0U		130.0D			
	200	GORK	46 C	0925.7	0926.0	3.0	120.0D			
	200	GORK		0925.7	0927.4		120.0D			
	127	TORN	42 SER	0925.8	0926.1	10.0	2700.0			
	245	LEAR	49 GB	0925.8	0927.3	2.7	2000.0			QL=6 ST=2 TYP=6
	410	LEAR	47 GB	0927.1	0927.3	.4	180.0			QL=6 ST=2 TYP=5
	610	LEAR	8 S	0927.3	0927.3	.3	20.0			QL=6 ST=2 TYP=3
	810	KRAK	8 S	0927.5	0927.5	.1	60.0			
	100	GORK	41 F	0933.1	0933.2	3.5	130.0D			
	100	GORK	41 F	0933.1	0934.1		1680.0D			
	100	GORK		0933.1	0936.4		130.0D			
	200	GORK	41 F	0933.8	0935.1	72.0	360.0D			
	200	GORK		0933.8	0937.5		360.0D			
	200	GORK		0933.8	0952.1		35.0			
	200	GORK		0933.8	0956.1		60.0			
	200	GORK		0933.8	1019.8		3740.0			
	200	GORK		0933.8	1023.0		3100.0			
	610	LEAR	47 GB	0934.1	0935.1	1.2	90.0			QL=6 ST=2 TYP=5
	245	LEAR	8 S	0934.8	0935.0	.7	40.0			QL=6 ST=2 TYP=3
	810	KRAK	8 S	0935.0	0935.0	.1	80.0			
	410	LEAR	47 GB	0935.0	0935.1	1.0	92.0			QL=6 ST=2 TYP=5
	650	GORK	8 S	0935.0	0935.1	.3	40.0D			
	430	KRAK	45 C	0947.5	0951.5	5.0	51.0	19.0		
	410	LEAR	4 S/F	0947.8	0951.8	5.3	49.0			QL=6 ST=2 TYP=3
	950	GORK	46 C	0948.0	0950.4	6.1	35.0			
	950	GORK		0948.0	0951.4			30.0		
	245	LEAR	47 GB	0948.6	0951.8	4.9	88.0			QL=6 ST=2 TYP=5
	650	GORK	46 C	0949.5	0950.4	3.0	13.0			
	650	GORK		0949.5	0951.4		20.0			
	810	KRAK	7 C	0949.8	0950.0	2.2	27.0	13.0		
	808	ONDR	45 C	0950.0	0950.5	3.5	18.0	16.0		
	1470	POTS	4 S/F	0950.0	0951.9	3.0	9.0			
	810	KRAK	42 SER	0950.8	1008.2	17.4U	45.0			
	113	POTS	8 S	0953.9	0954.7	.8U	200.0	70.0		
	950	GORK	2 S/F	0956.1	0956.3	3.7	13.0			
	808	ONDR	1 S	0956.5	0957.0	1.5	7.0	2.0		
	808	ONDR	41 F	1004.5	1008.5	4.5	17.0			
	950	GORK	4 S/F	1005.6	1008.4	3.0	29.0			
	100	GORK	41 F	1007.0	1007.2	1.7	130.0D			
	100	GORK		1007.0	1008.3		130.0D			
	204	IZMI	42 SER	1008.0	1019.5	37.0	14000.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
22	234	POTS	8	S	1008.7	1008.8	.1	125.0	40.0		III
	2650	DWIN	4	S/F	1010.0	1028.0	20.0				
	100	GORK	41	F	1015.5	1017.0U	5.0	130.0D			
	100	GORK			1015.5	1018.9		1500.0D			
	430	KRAK	46	C	1016.5	1017.2	28.5	570.0D	16.0		
	3100	CRIM	42	SER	1016.5	1017.2	11.0	25.0	11.0		
	3100	CRIM			1016.5	1019.8		26.0			
	234	POTS	41	F	1016.5	1020.7	7.8	300000.0			III
	430	KRAK			1016.5	1022.7		570.0D			
	3100	CRIM			1016.5	1023.0		77.0			
	113	POTS	41	F	1016.7	1018.8	7.0	2200.0	150.0		III
	127	TORN	42	SER	1016.7	1021.7	7.5	280.0			
	810	KRAK			1016.8	1027.5		500.0			
	650	GORK	41	F	1017.0	1017.6U	10.0	40.0D			
	650	GORK			1017.0	1019.7U		40.0D			
	650	GORK			1017.0	1022.9		225.0			
	536	ONDR	46	C	1017.0	1023.0	8.0	175.0			
	3100	BERN	4	S/F	1017.0	1023.0	14.0	55.0			
	5200	BERN	4	S/F	1017.0	1023.0	14.0	45.0			
	950	GORK	4	S/F	1017.0	1023.4	9.6	152.0			
	29	UPIC	46	C	1017.2	1019.9	3.5				
	33	UPIC	46	C	1017.3	1019.9	3.7				
	808	ONDR	45	C	1018.0	1022.5	12.0	100.0	31.0		
	3000	IZMI	4	S/F	1019.0	1022.5	7.0	42.0	13.0		
	6100	KISV	2	S/F	1019.5	1020.0	3.0	10.0			
	9100	GORK	1	S	1019.6	1020.0	1.3	11.0			
	2950	GORK	4	S/F	1019.7	1023.1	6.5	62.0			
	6100	KISV	4	S/F	1022.7	1023.0	4.0	21.0			
	9100	GORK	2	S/F	1022.8	1023.1	1.2	27.0			
	536	ONDR	29	PBI	1025.0	1025.0	33.0	77.0	6.0		
	950	GORK	29	PBI	1026.6	1027.0	11.8	18.0			
	808	ONDR	29	PBI	1030.0	1030.0	1.0	5.0	2.0		
	234	POTS	4	S/F	1038.7	1038.8	.5	140.0	1.0		
	1470	POTS	45	C	1115.0	1147.5	55.0	67.0			
	204	IZMI	42	SER	1124.0	1143.0	27.0	5500.0			
	113	POTS	42	SER	1124.1	1131.4	7.8	700.0	5.0		III
	127	TORN	42	SER	1124.5	1131.5	7.5	1500.0			
	234	POTS	42	SER	1126.1	1129.5	5.5	47000.0	600.0		III
	6100	KISV	2	S/F	1129.0	1129.5	1.5	5.0			
	810	KRAK	42	SER	1129.2	1129.8	3.5	120.0D			
	810	KRAK			1129.2	1131.5		130.0			
	430	KRAK	42	SER	1129.5	1130.2	3.0	150.0			
	430	KRAK			1129.5	1131.3		140.0			
	536	ONDR	46	C	1129.5	1131.5	4.0	91.0			
	9500	POTS	42	SER	1130.5	1147.1	24.0	910.0			
	6100	KISV	2	S/F	1130.6	1131.5	2.5	7.0			
	808	ONDR	8	S	1131.5	1131.5	.1	12.0			
	808	ONDR	8	S	1138.5	1138.5	.1	17.0			
	6100	KISV	1	S	1138.7	1139.5	1.5	7.0			
	430	KRAK	46	C	1139.0	1142.8	35.0	520.0	19.0		
	8400	BERN	45	C	1139.0	1143.0	15.0	132.0			
	3100	BERN	45	C	1139.0	1143.0	25.0	93.0			
	5200	BERN	45	C	1139.0	1143.0	25.0	122.0			
	536	ONDR	46	C	1139.0	1143.5	11.0	253.0			
	430	KRAK			1139.0	1146.5		100.0			
	127	TORN	42	SER	1139.1	1143.4U	9.0	5600.0D			SATURATION
	234	POTS	42	SER	1139.2	1143.1	8.5	300000.0D			III/V
	113	POTS	42	SER	1139.3	1143.1	9.0	6000.0	120.0		III
	536	ONDR	29	PBI	1140.0	1140.0	22.0	14.0	5.0		
	11800	BERN	45	C	1142.5	1142.9	12.0	127.0			
	35000	BERN	45	C	1142.5	1146.4	8.0	187.0			
	19600	BERN	45	C	1142.5	1147.1	8.0	109.0			
	810	KRAK	46	C	1142.8	1143.0	29.5	280.0	22.0		
	6100	KISV	3	S	1142.8	1143.0	1.0	35.0			
	2695	ATHN	47	GB	1142.8	1143.1	2.0	79.0			QL=2 ST=2 TYP=5
	4995	ATHN	47	GB	1142.8	1143.1	1.3	89.0			QL=2 ST=2 TYP=5
	810	KRAK			1142.8	1146.2		250.0			
	1415	ATHN	47	GB	1142.8	1147.3	11.5	69.0			QL=2 ST=2 TYP=5
	2650	DWIN	4	S/F	1143.0	1147.0	15.0				
	808	ONDR	45	C	1143.0		7.0		16.0		
	808	ONDR			1143.0	1143.0		140.0			

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
22	8800	ATHN	47 GB	1143.0	1143.1	1.1	81.0			QL=2 ST=2 TYP=5
	3100	CRIM	45 C	1143.0	1143.2	13.0	87.0	31.0		
	808	ONDR		1143.0	1146.5		100.0			
	3100	CRIM		1143.0	1147.2		95.0			
	3000	IZMI	45 C	1143.4	1147.8	8.5	68.0	32.0		
	6100	KISV	4 S/F	1146.0	1147.2	5.0D	73.0			
	4995	ATHN	47 GB	1146.3	1147.3	10.3	86.0			QL=2 ST=2 TYP=5
	8800	ATHN	47 GB	1146.3	1147.3	2.7	68.0			QL=2 ST=2 TYP=5
	2695	ATHN	47 GB	1146.5	1147.3	7.6	100.0			QL=2 ST=2 TYP=5
	808	ONDR	29 PBI	1150.0	1150.0	10.0	20.0	16.0		
	127	TORN	27 RF	1220.0	1341.0	81.0U	500.0	36.0		
	9500	POTS	45 C	1222.5	1223.2	28.0	219.0			
	410	SGMR	47 GB	1222.8	1223.3	.5	139.0			QL=6 ST=2 TYP=5
	113	POTS	41 F	1222.8	1223.4	5.7	19000.0	550.0		III
	430	KRAK	45 C	1222.8	1223.5	20.0U	200.0	35.0		
	3100	CRIM	3 S	1222.9	1223.0	12.0	209.0	70.0		
	127	TORN	8 S	1222.9	1223.3	1.5	3500.0D	1800.0		SATURATION
	2650	DWIN	45 C	1223.0	1223.0	15.0				
	808	ONDR	45 C	1223.0		7.0		56.0		
	3100	BERN	45 C	1223.0	1223.3	40.0	181.0			
	19600	BERN	45 C	1223.0	1223.3	4.0	160.0			
	11800	BERN	45 C	1223.0	1223.3	4.0	291.0			
	35000	BERN	45 C	1223.0	1223.3	4.0	150.0			
	8400	BERN	45 C	1223.0	1223.3	10.0	324.0			
	5200	BERN	45 C	1223.0	1223.3	20.0	235.0			
	808	ONDR		1223.0	1223.5		62.0			
	1470	POTS	45 C	1223.0	1224.0	30.0	100.0			
	536	ONDR	46 C	1223.0	1224.5	7.0	130.0	74.0		
	808	ONDR		1223.0	1225.0		100.0			
	808	ONDR		1223.0	1226.5		50.0			
	610	SGMR	47 GB	1223.1	1223.3	12.2	380.0			QL=6 ST=2 TYP=5
	15400	SGMR	47 GB	1223.1	1223.3	6.9	139.0			QL=5 ST=2 TYP=5
	1415	SGMR	47 GB	1223.1	1223.3	11.7	139.0			QL=6 ST=2 TYP=5
	4995	SGMR	47 GB	1223.1	1223.3	10.4	239.0			QL=6 ST=2 TYP=5
	8800	SGMR	47 GB	1223.1	1223.3	8.7	290.0			QL=6 ST=2 TYP=5
	2695	SGMR	47 GB	1223.1	1223.3	12.0	139.0			QL=6 ST=2 TYP=5
	245	SGMR	49 GB	1223.1	1224.6	11.0	3500.0			QL=6 ST=2 TYP=6
	810	KRAK	45 C	1223.5	1225.2	19.0U	290.0	35.0		
	234	POTS	41 F	1223.8	1224.9	3.8	275000.0			III
	9400	HUAN	2 S/F	1225.5	1226.2	1.6	18.2	7.3		R
	536	ONDR	29 PBI	1230.0	1230.0	18.0	14.0	11.0		
	808	ONDR	29 PBI	1230.0	1230.0	20.0	17.0	13.0		
	536	ONDR	46 C	1248.0	1248.5	2.0	175.0			
	9400	HUAN	23 GRF	1320.0	1331.4	53.4	9.1	3.6		R
	2800	OTTA	240AR	1325.0	1333.0	8.0	11.2	5.6		
	234	POTS	41 F	1330.1	1335.2	5.6	19000.0			III
	113	POTS	41 F	1330.5	1335.5	6.0	7000.0			III
	1470	POTS	23 GRF	1330.6	1335.9	9.4	12.0			
	1415	ATHN	4 S/F	1330.6	1336.1	11.5	24.0			QL=2 ST=2 TYP=3
	410	SGMR	47 GB	1330.8	1331.1	1.7	58.0			QL=6 ST=3 TYP=5
	610	SGMR	8 S	1330.8	1331.1	1.3	41.0			QL=6 ST=3 TYP=3
	245	SGMR	8 S	1330.8	1332.3	1.5	480.0			QL=6 ST=3 TYP=3
	2695	ATHN	4 S/F	1330.8	1336.1	11.3	26.0			QL=2 ST=2 TYP=3
	4995	ATHN	4 S/F	1330.8	1336.1	10.2	11.0			QL=2 ST=2 TYP=3
	8800	ATHN	4 S/F	1330.8	1336.1	10.5	6.0			QL=2 ST=2 TYP=3
	2800	OTTA	1 S	1331.0	1331.5	1.5	6.2	3.1		
	5200	BERN	4 S/F	1331.0	1335.5	15.0D	14.0			
	3100	BERN	4 S/F	1331.0	1335.5	15.0D	16.0			
	410	SGMR	47 GB	1334.1	1334.1	2.5	270.0			QL=6 ST=2 TYP=5
	9400	HUAN	2 S/F	1334.4	1335.5	2.8	12.1	4.8		R
	9500	POTS	23 GRF	1334.5	1335.5	11.0	18.0			
	2800	OTTA	4 S/F	1334.5	1335.5	4.0	16.4	8.0		
	4995	SGMR	8 S	1334.8	1335.5	2.0	20.0			QL=6 ST=2 TYP=3
	2650	DWIN	1 S	1335.0	1336.0	2.0				
	245	SGMR	8 S	1335.0	1335.1	1.6	2000.0			QL=6 ST=2 TYP=3
	1415	SGMR	4 S/F	1335.1	1335.5	2.2	29.0			QL=6 ST=2 TYP=3
	610	SGMR	8 S	1335.3	1335.5	1.5	21.0			QL=6 ST=2 TYP=3
	2695	SGMR	8 S	1335.3	1335.6	1.2	22.0			QL=6 ST=2 TYP=3
	536	ONDR	40 F	1340.0	1341.5	8.0	25.0			
	2800	OTTA	8 S	1346.5	1346.5	.3	14.8			
	234	POTS	4 S/F	1405.4	1405.6	.4	700.0	70.0		III

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
22	113	POTS	8 S	1415.5	1415.6	.3	1100.0	400.0		
	2650	DWIN	1 S	1425.0	1426.0	2.0				
	2800	OTTA	240AR	1425.0	1510.0	45.0	14.6	7.0		
	113	POTS	4 S/F	1425.4	1425.7	.7	2800.0	700.0		III
	3100	BERN	3 S	1425.5	1425.9	2.0	71.0			
	8400	BERN	3 S	1425.5	1425.9	1.0	136.0			
	11800	BERN	3 S	1425.5	1425.9	1.0	114.0			
	19600	BERN	3 S	1425.5	1425.9	1.0	32.0			
	5200	BERN	3 S	1425.5	1425.9	2.0	106.0			
	2800	OTTA	4 S/F	1425.6	1426.0	9.0	84.0	13.6		
	410	SGMR	4 S/F	1425.6	1426.0	2.9	44.0			QL=6 ST=2 TYP=3
	245	SGMR	4 S/F	1425.6	1427.3	6.5	230.0			QL=6 ST=2 TYP=3
	234	POTS	4 S/F	1425.7	1425.9	.9	170.0	30.0		III/V
	610	SGMR	47 GB	1425.8	1425.8	2.8	70.0			QL=6 ST=2 TYP=5
	8800	SGMR	47 GB	1425.8	1425.8	1.2	130.0			QL=6 ST=2 TYP=5
	1415	SGMR	4 S/F	1425.8	1425.8	2.8	34.0			QL=6 ST=2 TYP=3
	4995	SGMR	47 GB	1425.8	1425.8	1.3	100.0			QL=6 ST=2 TYP=5
	2695	SGMR	47 GB	1425.8	1425.8	2.7	60.0			QL=6 ST=2 TYP=5
	15400	SGMR	47 GB	1425.8	1426.0	.8	100.0			QL=6 ST=2 TYP=5
	2695	ATHN	47 GB	1425.8	1426.1	4.0	76.0			QL=2 ST=2 TYP=5
	4995	ATHN	47 GB	1425.8	1426.1	3.8	89.0			QL=2 ST=2 TYP=5
	1415	ATHN	4 S/F	1425.8	1426.1	2.8	24.0			QL=2 ST=2 TYP=3
	8800	ATHN	47 GB	1426.0	1426.1	1.3	81.0			QL=2 ST=2 TYP=5
	2800	OTTA	3 S	1444.0	1444.2	4.0	44.0	8.8		
	11800	BERN	8 S	1444.0	1444.3	1.0	60.0			
	8400	BERN	8 S	1444.0	1444.3	1.0	75.0			
	19600	BERN	8 S	1444.0	1444.3	1.0	38.0			
	245	SGMR	49 GB	1444.1	1444.1	2.0	1100.0			QL=6 ST=2 TYP=6
	15400	SGMR	8 S	1444.1	1444.1	.7	45.0			QL=6 ST=3 TYP=3
	2695	SGMR	4 S/F	1444.1	1444.1	2.2	41.0			QL=6 ST=2 TYP=3
	410	SGMR	47 GB	1444.1	1444.1	1.2	360.0			QL=6 ST=2 TYP=5
	610	SGMR	47 GB	1444.1	1444.1	2.0	130.0			QL=6 ST=2 TYP=5
	8800	SGMR	47 GB	1444.1	1444.1	.9	60.0			QL=6 ST=3 TYP=5
	4995	SGMR	8 S	1444.1	1444.1	1.2	47.0			QL=6 ST=2 TYP=3
	1415	SGMR	8 S	1444.1	1444.3	1.7	27.0			QL=6 ST=2 TYP=3
	9400	HUAN	22 GRF	1503.1	1514.6	36.9	10.6	7.4		R
	2800	OTTA	8 S	1524.5	1524.6	.5	3.2	1.6		
	2800	OTTA	1 S	1533.5	1534.0	2.0	5.0	2.3		
	410	SGMR	4 S/F	1536.6	1537.5	3.9	20.0			QL=6 ST=2 TYP=3
	245	SGMR	49 GB	1537.6	1537.8	1.9	600.0			QL=6 ST=2 TYP=6
	2800	OTTA	240AR	1550.0	1615.0	25.0	6.2	3.1		
	9400	HUAN	28 PRE	1552.0	1742.4	110.4	42.4	12.6		R
	2800	OTTA	2 S/F	1557.8	1559.0	3.5	6.2	3.2		
	2800	OTTA	3 S	1635.0	1637.4	18.0	24.6	8.0		
	9400	HUAN	3 S	1635.8	1637.7	4.0	36.3	15.9		R
	410	SGMR	8 S	1651.0	1651.3	1.1	13.0			QL=6 ST=2 TYP=3
	245	SGMR	47 GB	1651.1	1652.1	2.0	200.0			QL=6 ST=2 TYP=5
	2800	OTTA	8 S	1656.0	1656.1	.3	8.2			
	2800	OTTA	8 S	1656.0	1656.1	.3	8.2	.8		
	8800	SGMR	47 GB	1657.8	1658.0	13.8	110.0			QL=6 ST=2 TYP=5
	610	SGMR	4 S/F	1657.8	1658.5	11.7	33.0			QL=6 ST=2 TYP=3
	2800	OTTA	46F C	1657.9	1702.0	8.1	73.0	24.0		
	410	SGMR	4 S/F	1658.5	1659.0	10.6	29.0			QL=6 ST=2 TYP=3
	245	SGMR	47 GB	1658.8	1702.0	10.2	200.0			QL=6 ST=2 TYP=5
	9400	HUAN	45 C	1659.4	1702.1	4.0	57.5	31.2		R
	15400	SGMR	47 GB	1700.6	1701.6	7.4	79.0			QL=6 ST=2 TYP=5
	4995	SGMR	47 GB	1701.0	1702.3	8.1	70.0			QL=6 ST=2 TYP=5
	2695	SGMR	47 GB	1701.1	1702.3	9.0	59.0			QL=6 ST=2 TYP=5
	1415	SGMR	47 GB	1701.1	1702.3	7.2	58.0			QL=6 ST=2 TYP=5
	9400	HUAN	1 S	1705.1	1705.5	1.5	10.6	3.3		0
	2800	OTTA	28 PRE	1725.0		15.0	10.6			
	9400	HUAN	1 S	1736.5	1737.1	2.5	13.6	9.1		R
	2800	OTTA	47 GB	1740.0	1808.0	70.0	12610.0	965.0		
	245	PALE	49 GB	1740.3	1741.6	12.0	1100.0			QL=6 ST=2 TYP=6
	245	SGMR	4 S/F	1740.8	1741.6	11.5	1300.0			QL=6 ST=2 TYP=3
	4995	SGMR	47 GB	1740.8	1743.3	11.5	139.0			QL=6 ST=2 TYP=5
	1415	SGMR	49 GB	1740.8	1743.6	11.5	110.0			QL=6 ST=2 TYP=6
	610	PALE	47 GB	1741.0	1742.8	11.3	360.0			QL=6 ST=2 TYP=5
	8800	SGMR	47 GB	1741.1	1743.3	11.2	189.0			QL=6 ST=2 TYP=5
	2695	SGMR	47 GB	1741.3	1743.6	11.0	110.0			QL=6 ST=2 TYP=5
	1415	PALE	49 GB	1741.6	1743.6	10.7	100.0			QL=6 ST=2 TYP=6

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
22	4995	PALE	47	GB	1741.8	1743.6	10.5	130.0			QL=6 ST=2 TYP=5
	9400	HUAN	47	GB	1742.5	1814.5	63.6	1202.1	384.1		R
	610	SGMR	49	GB	1742.6	1742.8	9.7	630.0			QL=6 ST=2 TYP=6
	15400	SGMR	47	GB	1742.6	1743.3	9.7	230.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	1742.8	1743.0	9.5	239.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	1742.8	1743.3	9.5	230.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1743.0	1743.6	9.3	200.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1743.6	1744.3	8.7	89.0			QL=6 ST=2 TYP=5
	2695	SGMR	49	GB	1752.3	1753.6	12.3	1899.0			QL=6 ST=2 TYP=6
	610	PALE	49	GB	1752.3	1753.8	10.3	530.0			QL=6 ST=2 TYP=6
	15400	SGMR	47	GB	1752.3	1753.8	12.3	160.0			QL=6 ST=2 TYP=5
	610	SGMR	49	GB	1752.3	1754.0	12.3	610.0			QL=6 ST=2 TYP=6
	410	PALE	47	GB	1752.3	1754.3	10.3	139.0			QL=6 ST=2 TYP=5
	245	PALE	49	GB	1752.3	1754.8	10.3	680.0			QL=6 ST=2 TYP=6
	410	SGMR	47	GB	1752.3	1755.0	12.3	110.0			QL=6 ST=2 TYP=5
	1415	SGMR	49	GB	1752.3	1755.1	12.3	790.0			QL=6 ST=2 TYP=6
	4995	SGMR	49	GB	1752.3	1755.6	12.3	380.0			QL=6 ST=2 TYP=6
	8800	SGMR	49	GB	1752.3	1755.6	12.3	280.0			QL=6 ST=2 TYP=6
	245	SGMR	4	S/F	1752.3	1755.6	12.3	680.0			QL=6 ST=2 TYP=3
	15400	PALE	47	GB	1752.3	1755.8	10.3	169.0			QL=6 ST=2 TYP=5
	1415	PALE	49	GB	1752.3	1755.8	10.3	760.0			QL=6 ST=2 TYP=6
	4995	PALE	49	GB	1752.3	1755.8	10.3	330.0			QL=6 ST=2 TYP=6
	8800	PALE	49	GB	1752.3	1755.8	10.3	290.0			QL=6 ST=2 TYP=6
	4995	PALE	49	GB	1802.6	1802.8	9.7	690.0			QL=6 ST=2 TYP=7
	8800	PALE	49	GB	1802.6	1802.8	9.7	530.0			QL=6 ST=2 TYP=7
	1415	PALE	49	GB	1802.6	1802.8	9.7	790.0			QL=6 ST=2 TYP=7
	410	PALE	49	GB	1802.6	1804.6	9.7	139.0			QL=6 ST=2 TYP=7
	610	PALE	49	GB	1802.6	1805.6	9.7	320.0			QL=6 ST=2 TYP=7
	15400	PALE	49	GB	1802.6	1806.3	9.7	470.0			QL=6 ST=2 TYP=7
	410	SGMR	49	GB	1804.6	1805.0	9.7	83.0			QL=6 ST=2 TYP=7
	610	SGMR	49	GB	1804.6	1805.6	9.7	300.0			QL=6 ST=2 TYP=7
	245	SGMR	49	GB	1804.6	1806.1	9.7	640.0			QL=6 ST=2 TYP=7
	2695	SGMR	49	GB	1804.6	1806.5	9.7	8200.0			QL=6 ST=2 TYP=7
	15400	SGMR	49	GB	1804.6	1806.5	9.7	410.0			QL=6 ST=2 TYP=7
	8800	SGMR	49	GB	1804.6	1806.5	9.7	860.0			QL=6 ST=2 TYP=7
	4995	SGMR	49	GB	1804.6	1806.5	9.7	1100.0			QL=6 ST=2 TYP=7
	1415	SGMR	49	GB	1804.6	1806.8	9.7	3699.0			QL=6 ST=2 TYP=7
	610	PALE	49	GB	1812.3	1812.3	10.7	790.0			QL=6 ST=2 TYP=7
	410	PALE	49	GB	1812.3	1812.3	10.7	500.0			QL=6 ST=2 TYP=7
	15400	PALE	49	GB	1812.3	1812.3	10.7	700.0			QL=6 ST=2 TYP=7
	1415	PALE	49	GB	1812.3	1812.5	10.7	6000.0			QL=6 ST=2 TYP=7
	4995	PALE	49	GB	1812.3	1812.5	10.7	1699.0			QL=6 ST=2 TYP=7
	8800	PALE	49	GB	1812.3	1812.5	10.7	1300.0			QL=6 ST=2 TYP=7
	245	PALE	49	GB	1812.3	1812.6	4.5	41.0			QL=6 ST=2 TYP=7
	1415	SGMR	49	GB	1814.3	1814.3	11.5	7700.0			QL=6 ST=2 TYP=7
	410	SGMR	49	GB	1814.3	1814.5	11.5	620.0			QL=6 ST=2 TYP=7
	15400	SGMR	49	GB	1814.3	1814.5	11.5	690.0			QL=6 ST=2 TYP=7
	8800	SGMR	49	GB	1814.3	1814.6	11.5	1399.0			QL=6 ST=2 TYP=7
	4995	SGMR	49	GB	1814.3	1814.6	11.5	2000.0			QL=6 ST=2 TYP=7
	610	SGMR	49	GB	1814.3	1814.8	11.5	700.0			QL=6 ST=2 TYP=7
	2695	SGMR	49	GB	1814.3	1815.1	11.5	2800.0			QL=6 ST=2 TYP=7
	8800	PALE	49	GB	1823.0	1823.1	15.8	1699.0			QL=6 ST=2 TYP=6
	15400	PALE	49	GB	1823.0	1823.1	15.8	800.0			QL=6 ST=2 TYP=6
	1415	PALE	49	GB	1823.0	1823.6	15.8	4000.0			QL=6 ST=2 TYP=6
	410	PALE	47	GB	1823.0	1824.1	20.8	189.0			QL=6 ST=2 TYP=5
	4995	PALE	49	GB	1823.0	1825.6	15.8	860.0			QL=6 ST=2 TYP=6
	610	PALE	49	GB	1823.0	1831.8	20.8	239.0			QL=6 ST=2 TYP=6
	8800	SGMR	49	GB	1825.8	1825.8	9.5	620.0			QL=6 ST=2 TYP=6
	610	SGMR	47	GB	1825.8	1825.8	9.5	239.0			QL=6 ST=2 TYP=5
	4995	SGMR	49	GB	1825.8	1825.8	9.5	800.0			QL=6 ST=2 TYP=6
	1415	SGMR	49	GB	1825.8	1826.0	9.5	700.0			QL=6 ST=2 TYP=6
	15400	SGMR	47	GB	1825.8	1826.1	9.5	310.0			QL=6 ST=2 TYP=5
	2695	SGMR	49	GB	1825.8	1826.1	9.5	1000.0			QL=6 ST=2 TYP=6
	410	SGMR	47	GB	1825.8	1826.5	9.5	60.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1826.6	1826.6	.4	86.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1835.3	1835.5	12.8	280.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1835.3	1835.5	12.8	290.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1835.3	1835.6	12.8	160.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1835.3	1835.8	12.8	160.0			QL=6 ST=2 TYP=5
	610	SGMR	49	GB	1835.3	1836.3	12.8	139.0			QL=6 ST=2 TYP=6
	410	SGMR	20	GRF	1835.3	1836.3	8.8	48.0			QL=6 ST=2 TYP=2

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Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
22	2695	SGMR	49 GB	1835.3	1836.8	12.8	390.0			QL=6 ST=2 TYP=6
	245	SGMR	8 S	1840.8	1841.0	1.2	21.0			QL=6 ST=2 TYP=3
	9400	HUAN	29 PBI	1846.1	1846.1	31.4	195.3	94.8		R
	610	PALE	47 GB	1847.1	1848.3	11.7	370.0			QL=6 ST=2 TYP=5
	245	PALE	47 GB	1847.3	1850.3	11.5	79.0			QL=6 ST=2 TYP=5
	4995	PALE	47 GB	1848.0	1848.3	7.5	180.0			QL=6 ST=2 TYP=5
	8800	SGMR	47 GB	1848.1	1848.3	10.7	160.0			QL=6 ST=2 TYP=5
	610	SGMR	49 GB	1848.1	1848.3	10.7	510.0			QL=6 ST=2 TYP=6
	4995	SGMR	47 GB	1848.1	1848.3	10.7	119.0			QL=6 ST=2 TYP=5
	15400	SGMR	47 GB	1848.1	1848.8	10.7	100.0			QL=6 ST=2 TYP=5
	1415	SGMR	47 GB	1848.1	1848.8	10.7	310.0			QL=6 ST=2 TYP=5
	2695	SGMR	47 GB	1848.1	1849.0	10.7	68.0			QL=6 ST=2 TYP=5
	410	PALE	47 GB	1848.1	1849.6	10.7	110.0			QL=6 ST=2 TYP=5
	410	SGMR	47 GB	1848.1	1850.0	10.7	119.0			QL=6 ST=2 TYP=5
	1415	PALE	47 GB	1848.6	1848.8	2.5	290.0			QL=6 ST=2 TYP=5
	245	SGMR	8 S	1849.8	1850.1		36.0			QL=6 ST=2 TYP=3
	2800	OTTA	30 PBI	1850.0	1850.0	170.0	63.0	17.0		
	410	SGMR	47 GB	1858.8	1859.0	2.8	130.0			QL=6 ST=2 TYP=5
	8800	SGMR	47 GB	1858.8	1859.0	8.7	139.0			QL=6 ST=2 TYP=5
	4995	SGMR	47 GB	1858.8	1859.0	8.7	100.0			QL=6 ST=2 TYP=5
	610	SGMR	49 GB	1858.8	1859.5	8.7	700.0			QL=6 ST=2 TYP=6
	1415	SGMR	49 GB	1858.8	1859.6	8.7	970.0			QL=6 ST=2 TYP=6
	2695	SGMR	20 GRF	1858.8	1900.1	8.7	53.0			QL=6 ST=2 TYP=2
	15400	SGMR	47 GB	1858.8	1900.1	8.7	94.0			QL=6 ST=2 TYP=5
	610	PALE	49 GB	1858.8	1900.6	7.2	860.0			QL=6 ST=2 TYP=6
	2800	OTTA	46F C	1859.0	1905.2	10.0	17.2	5.8		
	1415	PALE	49 GB	1859.1	1859.6	2.7	870.0			QL=6 ST=2 TYP=6
	2695	SGMR	20 GRF	1907.5	1907.6	16.1	46.0			QL=6 ST=2 TYP=2
	4995	SGMR	47 GB	1907.5	1908.0	22.1	84.0			QL=6 ST=2 TYP=5
	8800	SGMR	47 GB	1907.5	1908.0	20.6	110.0			QL=6 ST=2 TYP=5
	15400	SGMR	47 GB	1907.5	1908.3	23.1	88.0			QL=6 ST=2 TYP=5
	610	SGMR	47 GB	1907.5	1908.6	10.3	230.0			QL=6 ST=2 TYP=5
	1415	SGMR	49 GB	1907.5	1908.6	23.1	280.0			QL=6 ST=2 TYP=6
	410	SGMR	47 GB	1908.6	1908.8	3.2	100.0			QL=6 ST=2 TYP=5
	2695	PENT	46F C	1931.0	1933.2	4.0	86.0	17.4		
	2800	OTTA	4 S/F	2055.0	2056.5	5.0	21.0	10.5		
	2695	PENT	8 S	2121.0	2121.1	.3	16.4			
	100	HIRA	46 C	2234.0	2236.5	60.0	110.0	40.0		WL
	9400	TYKW	45 C	2301.0	2302.2	11.0	14.0	6.0		
	8800	LEAR	20 GRF	2301.6	2303.5	4.2	19.0			QL=6 ST=2 TYP=2
	3750	TYKW	21 GRF	2310.0	2317.0	50.0	5.0	2.0		
	410	LEAR	8 S	2320.3	2320.6	.3	18.0			QL=6 ST=2 TYP=3
	15400	LEAR	8 S	2329.1	2329.3	.5	27.0			QL=6 ST=2 TYP=3
	15400	PALE	8 S	2329.3	2329.3	.3	26.0			QL=6 ST=2 TYP=3
	3750	TYKW	45 C	2343.0	2344.8	15.0	7.0	3.0		
	9400	TYKW	5 S	2344.0	2347.0	13.0	14.0	6.0		
	15400	LEAR	20 GRF	2345.5	2346.0	1.0	20.0			QL=6 ST=2 TYP=2
	8800	LEAR	20 GRF	2345.5	2346.5	1.0	17.0			QL=6 ST=2 TYP=2
	4995	LEAR	20 GRF	2346.0	2346.1	1.0	11.0			QL=6 ST=2 TYP=2
23	204	IZMI	43 NS	0700.0		300.0	40.0			
	127	TORN	43 NS	0720.0	1121.0	420.0D	6000.0	2.0		V1
	260	ONDR	44 NS	0752.0E		362.0D				
	33	UPIC	43 NS	0805.7		399.3D				
	29	UPIC	43 NS	0806.2		398.8D				
	245	SGMR	43 NS	1208.0	1216.8	523.0D	76.0			QL=6 ST=2 TYP=1
	245	PALE	43 NS	1712.0	1736.8	150.0D	380.0			QL=3 ST=2 TYP=1
	200	HIRA	44 NS	2121.0E	2346.0	605.0D	10.0	5.0		WL
	245	LEAR	43 NS	2149.0	0247.6	762.0D	490.0			QL=6 ST=2 TYP=1
	410	LEAR	43 NS	2149.0	0413.1	762.0D	130.0			QL=6 ST=2 TYP=1
	208	VORO	44 NS	2300.0E		300.0D		5.0		
	410	LEAR	8 S	0018.0	0018.1	.6	7.0			QL=6 ST=2 TYP=3
	245	LEAR	47 GB	0018.0	0018.5	.6	65.0			QL=6 ST=2 TYP=5
	610	LEAR	8 S	0018.0	0018.5	.6	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	20 GRF	0020.0	0045.0	50.0	3.0	1.5		
	9400	TYKW	5 S	0022.0	0026.0	15.0	4.0	2.0		
	245	LEAR	47 GB	0027.0	0027.1	1.1	66.0			QL=6 ST=2 TYP=5
	245	LEAR	47 GB	0031.8	0031.8	.2	60.0			QL=6 ST=2 TYP=5
	9400	TYKW	5 S	0043.0	0049.0	20.0	7.0	3.0		
	245	LEAR	47 GB	0058.6	0058.6	.2	440.0			QL=6 ST=2 TYP=5
	610	LEAR	49 GB	0058.6	0058.6	.2	690.0			QL=6 ST=2 TYP=6

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

NOVEMBER 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
23	410	LEAR	47	GB	0058.6	0058.6	.2	70.0			QL=6 ST=2 TYP=5
	9400	TYKW	21	GRF	0110.0	0130.0	50.0	4.0	2.0		
	3750	TYKW	21	GRF	0120.0	0130.0	50.0	3.0	1.5		
	2000	TYKW	21	GRF	0125.0	0148.0	35.0	4.0	2.0		
	9400	TYKW	5	S	0145.0	0146.0	5.0	5.0	1.5		
	3750	TYKW	5	S	0153.0	0153.3	1.0	4.0	1.5		
	2000	TYKW	5	S	0153.0	0153.3	1.0	3.0	1.0		
	9400	TYKW	5	S	0153.0	0153.3	2.0	10.0	2.0		
	1000	TYKW	5	S	0153.0	0153.4	1.0	8.0	2.0		
	245	LEAR	47	GB	0153.1	0153.1	.4	300.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0153.1	0153.1	.4	280.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0153.1	0153.3	.5	360.0			QL=6 ST=3 TYP=5
	410	PALE	47	GB	0153.1	0153.3	.5	420.0			QL=6 ST=3 TYP=5
	610	LEAR	8	S	0153.1	0153.3	.4	20.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0201.6	0202.3	3.0	10.0	2.0		
	610	LEAR	8	S	0203.3	0203.5	.3	25.0			QL=6 ST=2 TYP=3
	245	LEAR	49	GB	0203.3	0203.5	.3	580.0			QL=6 ST=2 TYP=6
	610	LEAR	8	S	0204.8	0205.0	.3	21.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0204.8	0205.0	.3	23.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0205.6	0205.8	.2	75.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0205.6	0205.8	.2	9.0			QL=6 ST=2 TYP=3
	9400	TYKW			0220.0	0221.0		19.0			
	9400	TYKW	45	C	0220.0	0223.0	4.0	29.0	7.0		
	9395	PEKG	45	C	0220.0	0223.1	8.0	26.7	4.3		
	245	LEAR	47	GB	0221.0	0221.1	.1	71.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0221.0	0221.1	.1	11.0			QL=6 ST=2 TYP=3
	17000	NOBE	1	S	0222.4	0223.0	3.0	29.0			R
	9400	TYKW	29	PBI	0224.0		12.0	6.0	3.0		
	3750	TYKW	21	GRF	0230.0	0311.0	110.0	4.0	1.5		
	9400	TYKW	21	GRF	0254.0	0313.0	105.0	12.0	6.0		
	2000	TYKW	21	GRF	0300.0	0310.0	30.0	1.5	.7		
	9400	TYKW	5	S	0316.0	0317.7	4.0	184.0	20.0		
	2840	PEKG	3	S	0317.0	0317.7	2.0	34.4	28.6		
	17000	NOBE	7	C	0317.3	0317.6	3.0	157.0			R
	2000	TYKW	5	S	0317.3	0317.6	3.0	15.0	3.0		
	3750	TYKW	5	S	0317.5	0317.7	4.5	65.0	11.0		
	1000	TYKW	45	C	0317.5	0317.8	.5	14.0	2.0		
	9400	TYKW	29	PBI	0320.0		10.0	5.0	2.0U		INTERFERENCE
	3750	TYKW	45	C	0325.0	0325.3	1.5	3.0	1.0		
	3750	TYKW	5	S	0331.8	0332.1	1.0	6.0	1.5		
	610	LEAR	8	S	0333.1	0333.1	.2	43.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0333.1	0333.1	.2	8.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0333.1	0333.1	.2	169.0			QL=6 ST=2 TYP=5
	9400	TYKW	45	C	0343.0	0348.5	18.0	10.0	4.0		
	3750	TYKW	20	GRF	0343.0	0359.0	35.0	3.0	1.5		
	17000	NOBE	1	S	0358.1	0358.6	3.0	20.0			R
	100	HIRA	42	SER	0406.5	0406.5	17.7	5300.0			WL
	245	LEAR	49	GB	0406.6	0406.6	1.7	590.0			QL=6 ST=2 TYP=6
	410	LEAR	47	GB	0406.8	0407.0	1.3	110.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0408.1	0408.1	.2	239.0			QL=6 ST=2 TYP=5
	2000	TYKW	32	ABS	0410.0	0435.0	60.0	-2.0	-1.0		
	245	LEAR	47	GB	0412.0	0412.1	.1	88.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	0412.0	0413.6	1.8	37.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0412.0	0414.1	2.3	340.0			QL=6 ST=2 TYP=5
	9400	TYKW	5	S	0422.0	0423.2	2.0	6.0	3.0		
	410	LEAR	47	GB	0423.8	0423.8	.2	150.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0423.8	0423.8	.2	239.0			QL=6 ST=2 TYP=5
	9400	TYKW	30	PBI	0424.0		10.0	3.0	1.5		
	3750	TYKW	31	ABS	0425.0	0435.0	50.0	-2.0	-1.0		
	9400	TYKW	45	C	0427.5	0428.2	2.5	14.0	4.0		
	3750	TYKW	45	C	0427.5	0428.3	4.0	10.0	2.0		
	17000	NOBE	1	S	0427.6	0429.1	3.0	28.0			R
	9400	TYKW	5	S	0516.0	0517.8	4.0	13.0	5.0		
	3750	TYKW	5	S	0517.0	0517.9	4.0	2.0	.7		
	9400	TYKW	29	PBI	0520.0		8.0	3.0	1.5		
	2000	TYKW	5	S	0522.7	0523.1	1.0	5.0	1.0		
	3750	TYKW	5	S	0522.8	0523.1	1.0	3.0	.7		
	1000	TYKW	5	S	0522.9	0523.1	.5	30.0	7.0		
	9400	TYKW	45	C	0536.0	0538.2	3.0	11.0	3.0		
	9400	TYKW	29	PBI	0539.0		5.0	3.0	1.5		
	9400	TYKW	21	GRF	0551.0	0559.0	55.0	6.0	3.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
23	100	HIRA	46	C	0552.7	0553.8	1.5	430.0	225.0		WL
	2950	GORK	21	GRF	0614.6E	0948.0	310.0D	14.1			
	3100	CRIM	1	S	0651.0	0651.4	3.0	33.0	1.0		
	9100	GORK	23	GRF	0651.0	0924.2	273.0D	30.0			
	2000	TYKW	40	F	0653.0	0655.9	6.0	-15.0	-.5		
	3750	TYKW			0653.0	0656.0		-25.0			
	9400	TYKW			0653.0	0656.0		-4.3			
	3750	TYKW	40	F	0653.0	0656.5	6.0	26.0			
	9400	TYKW	40	F	0653.0	0656.5	6.0	46.0	-.5		
	2000	TYKW			0653.0	0656.5		15.0			
	9395	PEKG	3	S	0709.0	0715.2	10.0	44.8	18.7		
	2950	GORK	4	S/F	0709.8	0711.3	2.6	12.8			
	2840	PEKG	3	S	0714.0	0715.2	6.0	28.2	11.3		
	9400	TYKW	5	S	0714.5	0715.1	1.5	45.0	10.0U		
	3750	TYKW	5	S	0714.5	0715.2	1.5	30.0	10.0		
	1000	TYKW	5	S	0714.7	0715.1	1.0	170.0	35.0		
	2000	TYKW	5	S	0714.7	0715.1	1.0	46.0	12.0		
	113	POTS	42	SER	0714.8	0715.0	5.2	1700.0	20.0		III
	6100	KISV	8	S	0714.8	0715.1	1.0	24.0			
	204	IZMI	4	S/F	0714.8	0715.2	.8	4000.0	2000.0		
	9100	GORK	3	S	0714.9	0715.2	.7	36.0	18.0		
	3000	IZMI	5	S	0715.0	0715.2	6.0	24.0	10.0		
	2950	GORK	3	S	0715.0	0715.2	1.2	23.0			
	113	POTS	42	SER	0741.7	0741.8	6.3	450.0	1.0		III
	650	GORK	4	S/F	0757.7	0758.4	1.5	32.0	5.0		
	9100	GORK	4	S/F	0800.2	0806.5	6.3U	240.0			
	113	POTS	42	SER	0802.7	0806.5	9.3	35000.0D	300.0		III
	430	KRAK	42	SER	0805.5	0806.2	343.0	520.0D			
	430	KRAK			0805.5	1017.5		520.0D			
	430	KRAK			0805.5	1111.5		510.0D			
	430	KRAK			0805.5	1118.5		430.0			
	430	KRAK			0805.5	1249.3		520.0D			
	430	KRAK			0805.5	1319.5		520.0D			
	430	KRAK			0805.5	1346.7		450.0			
	8800	ATHN	47	GB	0805.6	0806.6	11.5	150.0			QL=2 ST=2 TYP=5
	127	TORN	42	SER	0805.8	0806.7	10.0	4200.0D			
	245	LEAR	49	GB	0806.0	0806.1	2.1	69000.0			QL=6 ST=2 TYP=6
	610	LEAR	49	GB	0806.0	0806.1	2.3	2699.0			QL=6 ST=2 TYP=6
	234	POTS	42	SER	0806.0	0806.2	6.0	220000.0	3000.0		III
	410	LEAR	49	GB	0806.0	0806.3	2.1	4900.0			QL=6 ST=2 TYP=6
	810	KRAK	42	SER	0806.0	0806.3	346.0	840.0D			
	3000	IZMI	46	C	0806.0	0806.4	7.0	103.0	30.0		
	9500	POTS	45	C	0806.0	0806.4	6.5	15.0			
	950	GORK	46	C	0806.0	0806.5	4.5	146.0			
	2950	GORK	45	C	0806.0	0806.5	2.7	117.0			
	204	IZMI	47	GB	0806.0	0806.5	1.3	100000.0	6000.0		
	1470	POTS	45	C	0806.0	0807.0	8.0	690.0			
	950	GORK			0806.0	0807.2		146.0			
	2950	GORK			0806.0	0807.2		72.0			
	810	KRAK			0806.0	1017.7		150.0			
	810	KRAK			0806.0	1029.7		125.0			
	810	KRAK			0806.0	1112.0		58.0			
	810	KRAK			0806.0	1119.0		380.0			
	810	KRAK			0806.0	1247.7		770.0			
	810	KRAK			0806.0	1319.8		800.0D			
	810	KRAK			0806.0	1346.5		800.0D			
	8800	LEAR	47	GB	0806.1	0806.3	2.2	219.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0806.1	0806.3	2.0	300.0			QL=6 ST=2 TYP=5
	35000	BERN	47	GB	0806.1	0806.4	4.0	576.0			
	8400	BERN	3	S	0806.1	0806.4	5.0	206.0			
	11800	BERN	3	S	0806.1	0806.4	5.0	236.0			
	19600	BERN	3	S	0806.1	0806.4	4.0	335.0			
	1415	LEAR	49	GB	0806.1	0806.5	3.5	1399.0			QL=6 ST=2 TYP=6
	3100	BERN	3	S	0806.1	0806.5	5.0	123.0			
	4995	LEAR	47	GB	0806.1	0806.5	2.5	130.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	0806.1	0806.5	3.2	130.0			QL=6 ST=2 TYP=5
	5200	BERN	3	S	0806.1	0806.5	5.0	138.0			
	1415	ATHN	49	GB	0806.1	0806.6	7.2	760.0			QL=2 ST=2 TYP=6
	2695	ATHN	47	GB	0806.1	0806.6	12.0	130.0			QL=2 ST=2 TYP=5
	4995	ATHN	47	GB	0806.1	0806.6	12.0	310.0			QL=2 ST=2 TYP=5
	650	GORK	46	C	0809.0	0809.3U	2.2	20.0D			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
23	650	GORK			0809.0	0810.7U		30.0D			
	410	LEAR	47	GB	0809.3	0811.8	3.7	410.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0809.5	0810.1	2.8	130.0			QL=6 ST=2 TYP=5
	2695	LEAR	8	S	0810.3	0811.3	2.0	19.0			QL=6 ST=2 TYP=3
	950	GORK	29	PBI	0810.5	0810.5	10.0	9.0			
	4995	LEAR	8	S	0811.1	0811.3	1.2	19.0			QL=6 ST=2 TYP=3
	650	GORK	29	PBI	0811.2	0811.2	18.8	8.0			
	536	ONDR	27	RF	0834.0	0852.5	34.0	35.0	30.0		
	234	POTS	42	SER	0842.3	0844.8	2.6	140.0	2.0		III
	113	POTS	8	S	0844.8	0844.9	.7	150.0	50.0		III
	2950	GORK	1	S	0858.7	0859.6	2.6	9.0			
	3100	BERN	3	S	0859.0	0859.5	2.0	10.0			
	9500	POTS	3	S	0859.0	0859.6	2.0	12.0			
	5200	BERN	3	S	0859.0	0859.8	2.0	19.0			
	8400	BERN	3	S	0859.0	0859.8	2.0	19.0			
	113	POTS	41	F	0859.2	0900.1	1.0	300.0	5.0		III
	6100	KISV	3	S	0859.3	0859.8	2.0	15.0			
	9100	GORK	1	S	0859.4	0859.8	1.0	13.0	6.0		
	4995	ATHN	8	S	0859.6	0859.8	1.0	39.0			QL=2 ST=2 TYP=3
	8800	ATHN	8	S	0859.6	0859.8	.9	6.0			QL=2 ST=2 TYP=3
	2695	ATHN	8	S	0859.6	0859.8	1.0	9.0			QL=2 ST=2 TYP=3
	650	GORK	8	S	0859.7	0859.7	.4	85.0			
	245	LEAR	49	GB	0859.8	0900.0	.3	800.0			QL=6 ST=2 TYP=6
	610	LEAR	47	GB	0859.8	0900.0	.5	90.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0859.8	0900.0	.5	25.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	0859.9	0900.0	.2	1400.0	140.0		III
	3100	CRIM	3	S	0904.5	0906.8	9.0	155.0	30.0		
	6100	KISV			0918.0	0921.7		49.0			
	6100	KISV	45	C	0918.0	0922.1	12.0	52.0			
	5200	BERN	4	S/F	0919.0	0921.3	7.0	42.0			
	9500	POTS	4	S/F	0919.0	0921.8	13.0	138.0			
	11800	BERN	4	S/F	0919.0	0922.0	7.0	154.0			
	8400	BERN	4	S/F	0919.0	0922.1	7.0	138.0			
	4995	ATHN	47	GB	0919.8	0921.8	5.3	62.0			QL=2 ST=2 TYP=5
	8800	ATHN	47	GB	0919.8	0921.8	5.3	86.0			QL=2 ST=2 TYP=5
	9100	GORK	4	S/F	0920.1	0922.0	3.5	143.0			
	8800	LEAR	47	GB	0920.1	0922.0	3.7	130.0			QL=5 ST=2 TYP=5
	15400	LEAR	47	GB	0920.3	0922.0	3.0	80.0			QL=6 ST=2 TYP=5
	19600	BERN	4	S/F	0920.5	0922.0	4.0	61.0			
	4995	LEAR	4	S/F	0920.8	0921.1	2.5	34.0			QL=6 ST=2 TYP=3
	536	ONDR	8	S	0928.0	0928.0	.1	14.0			
	9500	POTS	20	GRF	0954.0	0956.4	11.0	1.0			
	6100	KISV	1	S	0955.9	0956.5	1.5	5.0			
	536	ONDR	8	S	1008.2	1008.2	.1	8.0			
	536	ONDR	42	SER	1015.0	1018.0	20.0	299.0			
	9500	POTS	42	SER	1015.5	1016.1	18.0	28.0			
	950	GORK	21	GRF	1015.5	1018.5	7.7	3.0			
	5200	BERN	3	S	1015.6	1016.0	5.0U	39.0			
	8400	BERN	3	S	1015.6	1016.0	1.0	26.0			
	3100	BERN	3	S	1015.6	1016.0	5.0	28.0			
	11800	BERN	3	S	1015.6	1016.0	1.0	19.0			
	19600	BERN	3	S	1015.6	1016.0	1.0	7.0			
	6100	KISV	8	S	1015.7	1016.0	1.0	26.0			
	1470	POTS	42	SER	1015.7	1018.5	11.0	64.0			
	2950	GORK	3	S	1015.8	1016.0	.8	32.0			
	3000	IZMI	5	S	1015.8	1016.0	.8	34.0	21.0		
	9100	GORK	3	S	1015.8	1016.0	.8	36.0	18.0		
	2650	DWIN	1	S	1016.0	1016.0	3.0	37.0	15.0		
	3100	CRIM	1	S	1016.0	1016.1	1.0	37.0	12.0		
	610	LEAR	47	GB	1017.6	1017.8	1.2	210.0			QL=6 ST=2 TYP=5
	6100	KISV	1	S	1017.6	1018.0	1.0	3.0			
	245	LEAR	47	GB	1017.6	1018.8	2.0	50.0			QL=6 ST=2 TYP=5
	650	GORK	8	S	1017.7	1017.8U	.4	85.0D			
	234	POTS	42	SER	1017.7	1029.7	17.0	39000.0	40.0		III
	410	LEAR	47	GB	1017.8	1017.8	1.0	88.0			QL=6 ST=2 TYP=5
	950	GORK	8	S	1017.8	1017.8	.5	105.0			
	113	POTS	42	SER	1017.8	1029.7	16.0	700.0	1.0		III
	808	ONDR	8	S	1018.0	1018.0	.1	91.0			
	808	ONDR	42	SER	1019.0	1021.0	7.0	117.0			
	808	ONDR	42	SER	1026.0	1029.5	10.0	7.0			
	2650	DWIN	1	S	1059.0	1059.0	1.0	26.0	15.0		

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23	808	ONDR	42	SER	1059.0	1102.0	4.5	56.0			
	8400	BERN	45	C	1059.0	1118.8	30.0	149.0			
	11800	BERN	45	C	1059.0	1118.8	30.0	189.0			
	35000	BERN	45	C	1059.0	1118.8	30.0U	159.0			
	19600	BERN	45	C	1059.0	1118.8	30.0	153.0			
	3100	BERN	45	C	1059.0	1118.9	30.0	129.0			
	5200	BERN	45	C	1059.0	1118.9	30.0	158.0			
	3100	CRIM	1	S	1102.2	1102.6	1.0	23.0	7.0		
	2950	GORK	3	S	1102.2	1102.7	1.3	20.5			
	950	GORK	41	F	1102.4	1102.5	23.6	94.0			
	950	GORK			1102.4	1112.0		32.0			
	950	GORK			1102.4	1118.5		156.0D			
	9500	POTS	45	C	1102.4	1118.8	28.0	128.0			
	6100	KISV	4	S/F	1102.5	1102.7	1.5	22.0			
	3000	IZMI	5	S	1102.5	1103.0	1.0	30.0	15.0		
	1470	POTS	42	SER	1102.5	1119.5	28.0	184.0			
	2650	DWIN	1	S	1103.0	1103.0	1.0	31.0	15.0		
	650	GORK	41	F	1103.2	1103.5	20.8	27.0			
	650	GORK			1103.2	1111.2		93.0			
	650	GORK			1103.2	1118.5		90.0			
	6100	KISV	28	PRE	1106.0	1115.5	12.5	17.0			
	2650	DWIN	1	S	1111.0	1111.0	2.0	26.0	15.0		
	3100	CRIM	1	S	1111.0	1111.4	2.0	26.0	8.0		
	3000	IZMI	5	S	1111.0	1111.8	1.2	34.0	20.0		
	808	ONDR	8	S	1111.0	1112.0	2.0	8.0			
	536	ONDR	42	SER	1111.0	1118.5	14.0	247.0			
	9400	HUAN	1	S	1111.1	1111.5	1.2	6.6	2.9		R
	2950	GORK	3	S	1111.3	1111.6	11.6	24.0			
	6100	KISV	1	S	1111.3	1111.6	1.0	11.0			
	113	POTS	42	SER	1111.3	1118.6	7.6	7700.0	50.0		III
	234	POTS	42	SER	1111.5	1111.5	12.0	4700.0	225.0		III
	204	IZMI	41	F	1111.5	1112.5	10.0	20000.0			
	6100	KISV	46	C	1113.0	1118.9	6.0	100.0			
	6100	KISV			1113.0	1121.0		33.0			
	6100	KISV			1113.0	1121.6		38.0			
	9400	HUAN	45	C	1113.7	1118.6	11.3	136.8	22.1		R
	2650	DWIN	45	C	1118.0	1118.0	10.0	160.0	80.0		
	4995	ATHN	47	GB	1118.1	1119.0	4.4	110.0			QL=2 ST=2 TYP=5
	8800	ATHN	47	GB	1118.1	1119.0	4.4	100.0			QL=2 ST=2 TYP=5
	2695	ATHN	47	GB	1118.1	1119.0	7.5	119.0			QL=2 ST=2 TYP=5
	1415	ATHN	47	GB	1118.1	1119.0	7.5	219.0			QL=2 ST=2 TYP=5
	3100	CRIM	45	C	1118.2	1118.6	7.0	127.0	4.0		
	3100	CRIM			1118.2	1121.6		60.0			
	3000	IZMI	7	C	1118.5	1118.9	7.5	119.0	40.0		
	9100	GORK	3	S	1118.5	1118.9	1.0	135.0			
	2950	GORK	45	C	1118.6	1118.8	5.1	121.0			
	2950	GORK			1118.6	1121.0		41.0			
	2950	GORK			1118.6	1124.8		54.0			
	536	ONDR	8	S	1202.5	1202.5	.1	370.0			
	808	ONDR	42	SER	1202.5	1215.0	48.0	55.0			
	9400	HUAN	1	S	1214.8	1215.6	2.0	8.0	6.3		R
	9500	POTS	42	SER	1215.0	1220.5	20.0	18.0			
	1470	POTS	42	SER	1215.0	1220.7	12.0	3.0			
	536	ONDR	42	SER	1219.5	1225.5	11.5	156.0			
	234	POTS	4	S/F	1219.8	1219.9	.4	385.0	40.0		
	9400	HUAN	1	S	1220.1	1220.5	1.1	14.6	6.6		R
	9400	HUAN	1	S	1230.0	1230.2	2.6	17.3	5.4		0
	9400	HUAN	31	ABS	1232.6	1238.7	12.8	-8.0	-3.8		L
	536	ONDR	42	SER	1243.0	1249.0	10.0	331.0			
	1415	ATHN	47	GB	1243.3	1243.8	.8	160.0			QL=2 ST=2 TYP=5
	2695	ATHN	8	S	1243.3	1243.8	.8	17.0			QL=2 ST=2 TYP=3
	4995	ATHN	8	S	1243.3	1243.8	.8	19.0			QL=2 ST=2 TYP=3
	2650	DWIN	2	S/F	1244.0	1244.0	5.0	30.0	15.0		
	9400	HUAN	4	S/F	1246.2	1247.1	2.5	25.2	7.7		R
	8800	SGMR	47	GB	1246.8	1247.1	1.3	50.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1247.0	1247.1	1.1	58.0			QL=6 ST=2 TYP=5
	113	POTS	41	F	1248.3	1250.3	2.0	320.0	3.0		III
	610	SGMR	49	GB	1249.1	1250.1	2.0	1699.0			QL=6 ST=2 TYP=6
	245	SGMR	47	GB	1249.1	1250.1	1.9	180.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1249.1	1250.1	2.0	219.0			QL=6 ST=2 TYP=5
	234	POTS	41	F	1249.2	1249.2	1.3	550.0	8.0		III

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
23	9500	POTS	3	S	1307.0	1308.1	4.5	17.0			
	1470	POTS	1	S	1307.5	1308.2	2.5	4.0			
	536	ONDR	42	SER	1307.5	1310.0	3.0	175.0			
	2800	OTTA	4	S/F	1307.6	1309.7	6.0	22.0	11.0		
	9500	POTS	40	F	1316.6	1317.8	5.4	38.0			
	536	ONDR	42	SER	1317.0	1321.5	7.0	78.0			
	4995	ATHN	4	S/F	1317.3	1318.8	4.8	19.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	1317.3	1318.8	4.8	20.0			QL=2 ST=2 TYP=3
	8800	ATHN	4	S/F	1317.3	1318.8	4.8	30.0			QL=2 ST=2 TYP=3
	9400	HUAN	4	S/F	1317.4	1317.7	2.3	37.2	20.1		R
	15400	SGMR	47	GB	1317.5	1317.8	2.6	51.0			QL=6 ST=2 TYP=5
	5200	BERN	4	S/F	1317.5	1319.1	3.0	22.0			
	3100	BERN	4	S/F	1317.5	1319.7	3.0U	27.0			
	234	POTS	41	F	1317.6	1317.7	2.2	25000.0	800.0		III
	245	SGMR	49	GB	1317.6	1317.8	3.0	4000.0			QL=6 ST=2 TYP=6
	113	POTS	41	F	1317.6	1317.8	2.2	28000.0	900.0		III
	8800	SGMR	4	S/F	1317.6	1317.8	2.5	48.0			QL=6 ST=2 TYP=3
	1470	POTS	40	F	1317.7	1319.9	7.3	15.0			
	2650	DWIN	2	S/F	1318.0	1319.0	5.0	30.0	15.0		
	2695	SGMR	8	S	1318.6	1319.6	2.0	29.0			QL=6 ST=2 TYP=3
	808	ONDR	8	S	1319.0	1319.5	1.5	78.0			
	1415	SGMR	8	S	1319.0	1319.8	1.1	18.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	1319.5	1319.6	2.8	210.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1319.5	1319.6	1.1	139.0			QL=6 ST=2 TYP=5
	1470	POTS	42	SER	1330.0	1341.0	12.0	4.0			
	9500	POTS	42	SER	1330.8	1340.6	10.0	18.0			
	536	ONDR	42	SER	1331.0	1337.0	17.0	292.0			
	19600	BERN	45	C	1334.0	1345.8	20.0	127.0			
	3100	BERN	45	C	1334.0	1345.8	20.0	149.0			
	8400	BERN	45	C	1334.0	1345.8	20.0	145.0			
	11800	BERN	45	C	1334.0	1345.8	20.0	204.0			
	5200	BERN	45	C	1334.0	1345.8	20.0	133.0			
	234	POTS	42	SER	1334.2	1345.7	24.0	1700.0	10.0		III
	9400	HUAN	1	S	1335.4	1336.1	1.7	8.0	3.6		R
	113	POTS	42	SER	1335.7	1335.8	23.0	7700.0	50.0		III
	9400	HUAN	1	S	1340.0	1340.7	1.3	13.3	5.3		R
	9500	POTS	4	S/F	1344.5	1345.5	6.5	158.0			
	15400	SGMR	47	GB	1344.8	1345.8	4.5	300.0			QL=6 ST=2 TYP=5
	2650	DWIN	45	C	1345.0	1345.0	5.0	155.0	70.0		
	35000	BERN	45	C	1345.0U	1345.8	5.0U	161.0			
	9400	HUAN	4	S/F	1345.1	1345.8	4.1	160.7	46.6		R
	1415	ATHN	47	GB	1345.1	1346.0	6.2	72.0			QL=2 ST=2 TYP=5
	8800	ATHN	47	GB	1345.1	1346.0	5.4	139.0			QL=2 ST=2 TYP=5
	4995	ATHN	47	GB	1345.1	1346.0	5.4	110.0			QL=2 ST=2 TYP=5
	2695	ATHN	47	GB	1345.1	1346.0	6.2	119.0			QL=2 ST=2 TYP=5
	9400	HUAN			1345.1	1347.6		106.2			
	2800	OTTA	46F	C	1345.3	1345.7	4.7	150.0	46.2		
	8800	SGMR	47	GB	1345.3	1345.8	4.0	200.0			QL=6 ST=2 TYP=5
	1470	POTS	4	S/F	1345.5	1348.1	5.5	71.0			
	2695	SGMR	47	GB	1345.6	1345.8	4.7	130.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1345.6	1345.8	4.2	139.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1345.6	1345.8	1.2	600.0			QL=6 ST=2 TYP=6
	1415	SGMR	47	GB	1345.6	1345.8	4.9	100.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1345.6	1346.3	2.4	180.0			QL=6 ST=2 TYP=5
	610	SGMR	49	GB	1345.6	1346.5	3.7	2199.0			QL=6 ST=2 TYP=6
	808	ONDR	45	C	1346.0	1347.0	6.0	130.0			
	9400	HUAN	30	PBI	1349.2	1349.2	20.5	10.6	3.5		R
	2800	OTTA	29	PBI	1350.0	1350.0	9.0	6.2	2.2		
	9400	HUAN	1	S	1356.8	1357.3	1.2	5.3	3.6		O
	9400	HUAN	1	S	1415.0	1415.6	1.6	2.6	1.3		O
	9400	HUAN	1	S	1420.0	1420.4	1.1	8.0	4.6		O
	234	POTS	4	S/F	1420.3	1420.4	.2	300.0	50.0		III
	113	POTS	4	S/F	1420.3	1420.4	.8	100.0	25.0		III
	9400	HUAN	4	S/F	1422.1	1422.4	2.0	25.2	5.0		L
	19600	BERN	3	S	1431.0	1431.8	3.0	33.0			
	11800	BERN	3	S	1431.0	1431.8	3.0	82.0			
	8400	BERN	3	S	1431.0	1431.8	3.0	66.0			
	5200	BERN	3	S	1431.0	1431.9	3.0	47.0			
	3100	BERN	3	S	1431.0	1431.9	3.0	53.0			
	8800	ATHN	47	GB	1431.1	1432.3	2.5	58.0			QL=2 ST=2 TYP=5
	4995	ATHN	47	GB	1431.1	1432.3	2.5	79.0			QL=2 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
23	2695	ATHN	47	GB	1431.1	1432.3	2.5	55.0			QL=2 ST=2 TYP=5
	1415	ATHN	4	S/F	1431.1	1432.3	2.5	37.0			QL=2 ST=2 TYP=3
	245	SGMR	47	GB	1431.3	1431.8	2.2	1000.0			QL=6 ST=3 TYP=5
	8800	SGMR	47	GB	1431.3	1431.8	2.0	88.0			QL=6 ST=3 TYP=5
	9400	HUAN	3	S	1431.3	1431.8	1.3	77.0	27.6		R
	2800	OTTA	3	S	1431.4	1431.9	3.0	51.0	12.6		
	2695	SGMR	47	GB	1431.6	1431.8	1.9	50.0			QL=6 ST=3 TYP=5
	15400	SGMR	47	GB	1431.6	1431.8	1.4	100.0			QL=6 ST=3 TYP=5
	4995	SGMR	8	S	1431.6	1431.8	1.5	49.0			QL=6 ST=3 TYP=3
	1415	SGMR	4	S/F	1431.6	1432.0	2.2	49.0			QL=6 ST=3 TYP=3
	610	SGMR	47	GB	1431.6	1432.1	1.2	250.0			QL=6 ST=3 TYP=5
	2650	DWIN	2	S/F	1432.0	1432.0	2.0	53.0	25.0		
	9400	HUAN	30	PBI	1432.6	1432.6	10.6	6.6	2.0		R
	9400	HUAN	1	S	1433.6	1438.1	4.5U	10.0	1.3		0
	9400	HUAN	2	S/F	1438.7	1439.8	2.2	9.3	4.5		R
	2800	OTTA	2	S/F	1439.0	1440.0	3.0	9.4	3.2		
	15400	SGMR	8	S	1439.5	1440.3	.8	47.0			QL=6 ST=3 TYP=3
	610	SGMR	49	GB	1439.6	1439.8	.7	1000.0			QL=6 ST=3 TYP=6
	1415	SGMR	8	S	1439.6	1440.0	.7	16.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1439.6	1440.1	.7	100.0			QL=6 ST=3 TYP=5
	410	SGMR	47	GB	1439.6	1440.1	.7	75.0			QL=6 ST=3 TYP=5
	2650	DWIN	2	S/F	1452.0	1452.0	2.0	45.0	20.0		
	9400	HUAN	45	C	1452.4	1453.0	4.2	73.0	19.4		R
	610	SGMR	49	GB	1452.5	1454.5	3.1	1000.0			QL=6 ST=3 TYP=6
	245	SGMR	49	GB	1452.6	1453.0	1.5	1000.0			QL=6 ST=3 TYP=6
	1415	SGMR	47	GB	1452.6	1453.1	4.5	62.0			QL=6 ST=3 TYP=5
	2695	SGMR	47	GB	1452.6	1453.1	3.4	71.0			QL=6 ST=3 TYP=5
	4995	SGMR	47	GB	1452.6	1453.1	3.2	64.0			QL=6 ST=3 TYP=5
	2800	OTTA	46F	C	1452.7	1453.1	5.0	72.0	20.2		
	15400	SGMR	47	GB	1452.8	1453.0	1.5	119.0			QL=6 ST=3 TYP=5
	11800	BERN	3	S	1452.8	1453.0U	2.0U	75.0			
	19600	BERN	3	S	1452.8	1453.0U	2.0U	75.0			
	35000	BERN	3	S	1452.8	1453.0U	2.0U	105.0			
	8400	BERN	3	S	1452.8	1453.0U	2.0U	60.0			
	8800	SGMR	47	GB	1452.8	1453.1	1.3	70.0			QL=6 ST=3 TYP=5
	410	SGMR	47	GB	1452.8	1454.3	2.5	239.0			QL=6 ST=3 TYP=5
	9400	HUAN	1	S	1510.8	1511.2	1.7	14.6	6.4		R
	2800	OTTA	3	S	1511.0	1511.5	2.0	10.8	3.8		
	610	SGMR	47	GB	1511.5	1511.6	.6	219.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1511.6	1511.8	.7	75.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	1511.6	1511.8	.7	400.0			QL=6 ST=2 TYP=3
	2800	OTTA	1	S	1517.0	1518.0	2.0	8.0	2.8		
	9400	HUAN	1	S	1517.1	1518.0	1.5	4.0	2.4		
	610	SGMR	49	GB	1517.8	1518.0	4.0	2000.0			QL=6 ST=2 TYP=6
	245	SGMR	8	S	1517.8	1518.0	1.2	24.0			QL=6 ST=2 TYP=3
	9400	HUAN	1	S	1519.7	1520.2	1.5	5.3	2.2		
	2800	OTTA	3	S	1520.0	1520.3	3.0	31.0	6.0		
	1415	SGMR	8	S	1520.1	1520.3	1.7	29.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1520.1	1520.3	1.7	23.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1520.1	1520.3	1.7	19.0			QL=6 ST=2 TYP=3
	410	SGMR	49	GB	1521.5	1521.6	.6	660.0			QL=6 ST=2 TYP=6
	245	SGMR	8	S	1521.6	1521.6	.7	100.0			QL=6 ST=2 TYP=3
	9400	HUAN	21	GRF	1529.4	1535.7	29.3	8.0	3.4		
	9400	HUAN	1	S	1531.6	1532.2	1.6	10.6	5.3		
	610	SGMR	49	GB	1538.8	1540.1	4.2	1100.0			QL=6 ST=3 TYP=6
	9400	HUAN	3	S	1539.5	1539.8	1.3	37.2	11.3		R
	2695	SGMR	47	GB	1539.6	1539.8	1.9	53.0			QL=6 ST=3 TYP=5
	4995	SGMR	8	S	1539.6	1539.8	1.7	48.0			QL=6 ST=3 TYP=3
	2800	OTTA	3	S	1539.7	1540.0	4.0	57.0	11.6		
	8800	SGMR	8	S	1539.8	1539.8	1.0	43.0			QL=6 ST=3 TYP=3
	245	SGMR	47	GB	1539.8	1539.8	1.7	139.0			QL=6 ST=3 TYP=5
	1415	SGMR	8	S	1539.8	1540.0	1.3	46.0			QL=6 ST=3 TYP=3
	9400	HUAN	21	GRF	1603.5	1612.1	16.5	8.6	3.4		R
	610	SGMR	49	GB	1606.8	1611.8	7.2	1699.0			QL=6 ST=2 TYP=6
	2800	OTTA	45	C	1606.9	1610.1	9.0	33.0	8.0		
	9400	HUAN	3	S	1609.5	1610.1	1.6	35.8	12.8		R
	8800	SGMR	8	S	1609.8	1610.1	1.3	41.0			QL=6 ST=2 TYP=3
	245	SGMR	49	GB	1609.8	1611.8	4.2	470.0			QL=6 ST=2 TYP=6
	4995	SGMR	8	S	1610.0	1610.1	1.3	33.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1610.0	1610.1	4.6	38.0			QL=6 ST=2 TYP=3
	410	SGMR	49	GB	1610.0	1611.8	3.6	1699.0			QL=6 ST=2 TYP=6

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 −22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
23	1415	SGMR	8	S	1610.1	1610.1	1.2	33.0			QL=6 ST=2 TYP=3
	9400	HUAN	2	S/F	1612.9	1613.8	2.1	9.3	3.3		L
	610	SGMR	47	GB	1651.6	1653.1	2.9	51.0			QL=6 ST=2 TYP=5
	9400	HUAN	4	S/F	1652.1	1652.7	1.6	41.2	15.3		R
	2800	OTTA	3	S	1652.2	1652.8	2.5	25.0	8.0		
	4995	SGMR	8	S	1652.6	1652.8	1.4	33.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1652.6	1652.8	1.2	47.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1652.8	1652.8	1.0	20.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1706.1	1706.6	.7	330.0			QL=6 ST=2 TYP=5
	410	SGMR	49	GB	1706.1	1706.6	1.5	540.0			QL=6 ST=2 TYP=6
	245	SGMR	47	GB	1725.3	1725.3	1.2	320.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1725.3	1725.5	1.0	62.0			QL=6 ST=2 TYP=5
	245	PALE	49	GB	1725.3	1728.1	3.0	1800.0			QL=3 ST=2 TYP=6
	410	PALE	49	GB	1725.3	1728.1	4.7	1000.0			QL=3 ST=2 TYP=6
	410	SGMR	47	GB	1727.8	1728.1	.5	470.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1728.0	1728.1	.3	1500.0			QL=6 ST=2 TYP=6
	610	SGMR	47	GB	1728.0	1728.1	1.1	490.0			QL=6 ST=2 TYP=5
	245	PALE	49	GB	1741.0	1741.1	.5	630.0			QL=3 ST=2 TYP=6
	410	PALE	49	GB	1741.0	1741.1	.3	780.0			QL=3 ST=2 TYP=6
	8800	PALE	49	GB	1749.8	1750.1	1.3	660.0			QL=3 ST=2 TYP=6
	9400	HUAN	2	S/F	1845.2	1846.6	4.0	5.3	4.0		R
	15400	PALE	47	GB	1851.3	1853.6	3.5	57.0			QL=3 ST=2 TYP=5
	410	PALE	49	GB	1853.3	1853.5	.5	800.0			QL=3 ST=2 TYP=6
	410	SGMR	47	GB	1853.3	1853.5	1.3	390.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1853.3	1853.6	1.3	1699.0			QL=6 ST=2 TYP=6
	245	PALE	49	GB	1853.3	1853.6	.5	2000.0			QL=3 ST=2 TYP=6
	2800	OTTA	1	S	1853.5	1853.7	1.5	7.0	2.4		
	9400	HUAN	2	S/F	1855.2	1856.4	2.1	19.9	8.9		O
	245	SGMR	8	S	1856.0	1856.1	1.1	40.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1856.1	1856.1	.5	72.0			QL=6 ST=2 TYP=5
	8800	SGMR	8	S	1856.1	1856.6	1.5	37.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	1856.3	1856.5	.3	20.0			QL=3 ST=2 TYP=3
	9400	HUAN	20	GRF	1909.0	1910.8	9.2	8.0	3.6		R
	2800	OTTA	21	GRF	1940.0	2025.0	130.0	6.6			
	9400	HUAN	45	C	1940.0	1943.8	7.6	102.2	31.6		L
	8800	SGMR	47	GB	1943.1	1943.8	3.2	119.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1943.3	1943.8	2.7	51.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1943.5	1943.8	2.5	50.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	1943.5	1944.1	2.3	18.0			QL=6 ST=2 TYP=3
	2800	OTTA	3	S	1943.7	1944.0	5.0	32.0	7.0		
	2695	SGMR	8	S	1943.8	1944.0	1.0	27.0			QL=6 ST=2 TYP=3
	9400	HUAN	3	S	1956.6	1958.9	3.4	23.9	9.9		R
	8800	SGMR	8	S	1958.6	1958.8	1.2	40.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1958.6	1958.8	1.2	38.0			QL=6 ST=2 TYP=3
	610	SGMR	47	GB	1959.3	1959.6	1.2	52.0			QL=6 ST=2 TYP=5
	9400	HUAN	29	PBI	2000.0	2000.0	14.7	4.6	2.9		R
	9400	TYKW	5	S	2315.0	2315.8	2.0	33.0	9.0		
	17000	NOBE	7	C	2315.2	2315.9	2.5	92.0			R
	15400	LEAR	47	GB	2315.3	2315.8	2.0	88.0			QL=6 ST=2 TYP=5
	3750	TYKW	5	S	2315.5	2316.0	1.5D	4.0	1.5D		
	8800	LEAR	8	S	2315.6	2315.8	1.5	33.0			QL=5 ST=2 TYP=3
	4995	LEAR	4	S/F	2315.6	2316.1	2.5	11.0			QL=6 ST=2 TYP=3
	9400	TYKW	30	PBI	2317.0		22.0	4.0	2.0		
	9400	TYKW	5	S	2322.5	2323.8	4.5	23.0	8.0		
	17000	NOBE	1	S	2323.2	2323.5	1.5	18.0			R
	15400	LEAR	8	S	2323.3	2323.8	1.5	27.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	2323.3	2323.8	2.7	32.0			QL=5 ST=3 TYP=3
	4995	LEAR	8	S	2323.6	2323.8	1.0	11.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	2327.0		7.0	4.0	2.0		
	9400	TYKW	21	GRF	2344.0	2352.0	60.0	5.0	2.0		
	9400	TYKW	45	C	2359.5	0000.1	3.5	12.0	4.0		
	9400	TYKW			2359.5	0001.6		12.0			
	4995	LEAR	4	S/F	2359.8		3.0	18.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	2359.8		3.3	10.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	2359.8		2.3	13.0			QL=5 ST=2 TYP=3
24	200	GORK	44	NS	0557.0E		360.0D		5.0		
	260	ONDR	44	NS	0850.0E		335.0D				
	245	LEAR	43	NS	2149.0	0358.0	722.6	43.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		3.0		
	2000	TYKW	5	S	0000.0	0000.1	1.0	4.0	1.5		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
24	2000	TYKW	5	S	0001.5	0001.8	1.5	4.0	1.5		
	9400	TYKW	5	S	0011.0	0012.5	4.0	43.0	9.0		
	17000	NOBE	1	S	0011.9	0012.5	1.5	42.0			R
	1000	TYKW	5	S	0012.0	0012.3	.7	4.0	1.5		
	3750	TYKW	5	S	0012.0	0012.6	2.0	6.0	2.0		
	15400	LEAR	47	GB	0012.0	0012.3	1.6	57.0			QL=6 ST=2 TYP=5
	8800	LEAR	8	S	0012.0	0012.3	1.6	44.0			QL=5 ST=2 TYP=3
	9400	TYKW	5	S	0015.0	0018.0	15.0	6.0	3.0		
	410	LEAR	47	GB	0043.6	0443.8	241.2	94.0			QL=6 ST=2 TYP=5
	9400	TYKW	21	GRF	0050.0	0100.0	55.0	5.0	2.0		
	9400	TYKW	5	S	0105.0	0108.0	20.0	5.0	2.0		
	2000	TYKW	20	GRF	0145.0	0200.0	85.0	4.0	2.0		
	3750	TYKW	20	GRF	0200.0	0228.0	70.0	6.0	3.0		
	9400	TYKW	5	S	0227.0	0231.0	9.0	3.0	1.5		
	200	HIRA	46	C	0239.0	0239.6	.9	55.0	34.0		O
	245	LEAR	49	GB	0303.1	0303.1	1.0	590.0			QL=6 ST=2 TYP=6
	410	LEAR	47	GB	0303.1	0303.3	.5	50.0			QL=6 ST=2 TYP=5
	9400	TYKW	20	GRF	0332.0	0337.0	35.0	5.0	2.0		
	410	LEAR	47	GB	0409.6	0409.6	1.2	239.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0409.6	0409.6	1.2	490.0			QL=6 ST=3 TYP=5
	9400	TYKW	5	S	0416.0	0416.8	2.0	5.0	1.5		
	2840	PEKG	1	S	0441.0	0444.2	6.0	4.7	2.1		
	610	LEAR	4	S/F	0441.5	0442.3	4.6	10.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	0442.0	0454.0	40.0	7.0	3.0		
	9400	TYKW	20	GRF	0442.0	0455.0	40.0	6.0	3.0		
	9395	PEKG	45	C	0442.0	0442.8	6.0	36.7	17.7		
	2840	PEKG	1	S	0442.0	0444.0		21.1			
	4995	LEAR	8	S	0442.8	0443.5	1.8	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	45	C	0443.0	0443.7	6.0	10.0	3.0		
	2000	TYKW	5	S	0443.0	0444.3	4.0	9.0	2.5		
	2695	LEAR	4	S/F	0443.3	0444.1	2.8	8.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0443.3	0444.1	2.8	7.0			QL=6 ST=2 TYP=3
	8800	LEAR	20	GRF	0443.3	0454.0	22.2	10.0			QL=6 ST=2 TYP=2
	1000	TYKW	5	S	0443.5	0444.0	1.5	7.0	2.0		
	200	HIRA	46	C	0443.5	0444.0	3.6	550.0	78.0		O
	245	LEAR	47	GB	0443.6	0443.8	3.7	160.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0443.6	0443.8	1.2	94.0			QL=6 ST=2 TYP=5
	100	HIRA	46	C	0443.7	0444.8	2.5	440.0	90.0		WL
	15400	LEAR	20	GRF	0444.0	0454.0	21.5	7.0			QL=6 ST=2 TYP=2
	4995	LEAR	20	GRF	0444.8	0454.0	20.7	8.0			QL=6 ST=2 TYP=2
	245	LEAR	47	GB	0453.6	0453.8	.2	75.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0453.6	0453.8	.2	20.0			QL=6 ST=2 TYP=3
	2000	TYKW	20	GRF	0538.0	0550.0	50.0	2.0	1.0		
	9400	TYKW	5	S	0547.0	0556.0	23.0	6.0	2.0		
	410	LEAR	8	S	0551.3	0551.3	.2	7.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0551.3	0551.3	.2	7.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0551.3	0551.3	.2	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0554.5	0555.3	5.0	6.0	2.0		
	4995	LEAR	4	S/F	0554.6	0555.1	8.4	10.0			QL=6 ST=3 TYP=3
	950	GORK	20	GRF	0558.0E	0612.0	65.0D	13.0			
	2950	GORK	20	GRF	0642.2	0648.0	9.5	6.4			
	2950	GORK	20	GRF	0700.7	0707.8	60.0	12.8			
	9100	GORK	22	GRF	0703.0	0707.7	118.0	26.0			
	6100	KISV			0703.7	0704.8		5.0			
	6100	KISV	45	C	0703.7	0708.0	20.0D	6.0			
	2695	LEAR	8	S	0750.3	0751.1	1.3	8.0			QL=5 ST=2 TYP=3
	1415	LEAR	8	S	0750.3	0751.1	1.3	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0750.3	0751.1	1.3	20.0			QL=1 ST=2 TYP=3
	4995	LEAR	8	S	0750.3	0751.1	1.3	11.0			QL=5 ST=2 TYP=3
	15400	LEAR	8	S	0750.3	0751.1	1.3	32.0			QL=1 ST=2 TYP=3
	245	LEAR	8	S	0751.0	0751.1	.1	20.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0751.0	0751.1	.1	8.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0751.0	0751.1	.1	5.0			QL=6 ST=2 TYP=3
	650	GORK	21	GRF	0810.0	1054.0	175.0	4.5			
	610	LEAR	8	S	0818.1	0818.3	.2	18.0			QL=6 ST=2 TYP=3
	810	KRAK	8	S	0837.5	0837.6	.2	17.0			
	430	KRAK	42	SER	0859.0	0859.0	72.5	45.0			
	3100	CRIM	26	FAL	0900.0	1200.0		14.0			
	9100	GORK	22	GRF	1017.6	1027.6	51.0	20.0			
	2950	GORK	20	GRF	1017.9	1018.4	51.0	9.0			
	950	GORK	1	S	1018.3	1018.5	.9	2.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
24	650	GORK	8	S	1049.5	1049.7	.3	85.0			
	430	KRAK	8	S	1054.0	1054.0	.3	9.0			
	536	ONDR	1	S	1106.5	1107.5	2.0	21.0	2.0		
	650	GORK	4	S/F	1116.4	1117.1	2.9	9.0			
	808	ONDR	8	S	1129.5	1129.5	.1	10.0			
	9400	HUAN	1	S	1208.4	1209.5	1.8	4.2	2.5		0
	430	KRAK	8	S	1208.7	1208.7	.1	9.0			
	536	ONDR	8	S	1228.5	1228.5	.1	46.0			
	808	ONDR	8	S	1228.5	1228.5	.1	15.0			
	9400	HUAN	2	S/F	1232.9	1233.7	1.6	2.8	2.1		0
	430	KRAK	42	SER	1233.5	1234.2	6.0	12.0			
	810	KRAK	42	SER	1233.8	1233.9	.7	15.0			
	536	ONDR	2	S/F	1241.0	1241.5	1.5	15.0			
	610	SGMR	47	GB	1241.1	1241.3	1.2	60.0			QL=6 ST=2 TYP=5
	810	KRAK	8	S	1241.2	1241.3	.3	73.0			
	9400	HUAN	1	S	1253.2	1254.2	2.0	2.1	0.5		0
	9400	HUAN	20	GRF	1311.5	1321.3	46.7	7.0	2.6		0
	536	ONDR	2	S/F	1313.0	1313.5	1.0	10.0			
	2800	OTTA	8	S	1313.5	1313.6	.2	15.0			
	810	KRAK	8	S	1317.9	1318.1	.2	20.0			
	430	KRAK	8	S	1344.5	1344.7	.4	320.0			
	610	SGMR	8	S	1410.8	1411.0	1.2	20.0			QL=6 ST=2 TYP=3
	9400	HUAN	3	S	1546.8	1547.1	1.0	33.4	11.6		0
	9400	HUAN	20	GRF	1551.3	1602.1	17.3	2.8	1.2		0
	9400	HUAN	20	GRF	1624.7	1639.2	35.0	4.2	1.5		0
	610	SGMR	8	S	1720.5	1720.6	1.3	50.0			QL=6 ST=2 TYP=3
	9400	HUAN	2	S/F	1724.0	1724.7	2.8	3.5	2.0		R
	610	SGMR	8	S	1724.6	1724.8	1.2	20.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1724.8	1724.8	1.0	11.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1730.8	1731.3	1.5	17.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	1730.8	1731.3	2.0	21.0			QL=6 ST=2 TYP=3
	9400	HUAN	1	S	1752.2	1753.4	2.0	8.4	4.2		0
	2800	OTTA	21	GRF	1810.0	1830.0	140.0	4.0	2.2		
	9400	HUAN	1	S	1856.4	1857.6	2.4	2.8	1.1		0
	9400	HUAN	1	S	1905.2	1907.3	3.0	5.6	1.6		0
	9400	HUAN	8	S	1939.1	1939.5	1.1	79.4	26.8		R
	610	SGMR	49	GB	1939.3	1939.5	1.3	4000.0			QL=6 ST=2 TYP=6
	410	SGMR	8	S	1939.3	1939.5	1.0	50.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	1939.5	1939.6	1.1	56.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1939.5	1939.6	1.1	54.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1939.5	1939.6	8.1	100.0			QL=6 ST=2 TYP=5
	2800	OTTA	3	S	1939.5	1939.7	2.0	121.0	24.0		
	245	SGMR	49	GB	1939.6	1939.6	1.2	1000.0			QL=6 ST=2 TYP=6
	9400	HUAN	1	S	1950.5	1950.9	1.4	8.4	2.2		0
	9400	HUAN	22	GRF	2025.6	2033.0	12.9	5.6	2.8		0
	9400	HUAN	1	S	2053.2	2053.9	1.5	4.2	1.4		0
	2800	OTTA	8	S	2053.7	2053.9	.5	20.4	10.2		
	2695	PENT	21	GRF	2127.0	2131.0	11.0	10.6	5.6		
	9400	HUAN	2	S/F	2128.4	2130.5	5.5	8.4	3.3		R
	2695	PENT	8	S	2130.2	2130.7	.7	6.6	4.0		
	9400	HUAN	2	S/F	2159.2	2200.3	2.2	7.0	2.8		0
	3750	TYKW	5	S	2240.0	2240.8	3.0	2.0	.7		
	9400	TYKW	21	GRF	2240.0	2305.0	140.0	8.0	4.0		
	2000	TYKW	20	GRF	2240.0	2307.0	140.0	3.0	1.5		
	3750	TYKW	21	GRF	2240.0	2343.5	150.0	11.0	5.0		
	3750	TYKW	5	S	2253.0	2255.0	25.0	2.0	1.0		
	1000	TYKW	45	C	2303.5	2304.0	3.5	31.0	4.0		
	610	LEAR	47	GB	2331.3	2331.6	.5	70.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2342.3	2342.3	1.0	9.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2343.1	2343.1	1.0	63.0			QL=6 ST=2 TYP=5
25	410	LEAR	43	NS	0024.0	0033.3		11.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	0214.8	0225.6		20.0			QL=6 ST=2 TYP=1
	200	GORK	44	NS	0603.0E		344.0D		5.0		
	260	ONDR	44	NS	0800.0E		360.0D				
	245	LEAR	43	NS	2149.0	1026.0	764.0D	31.0			QL=6 ST=2 TYP=1
	3750	TYKW	21	GRF	0010.0	0013.5	45.0	2.0	1.0		
	1415	LEAR	8	S	0018.6	0018.8	.2	38.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0019.0	0021.5	10.0	6.0	2.0		
	9400	TYKW	5	S	0019.0U	0021.5	12.0U	11.0	4.0U		INTERFERENCE
	8800	LEAR	20	GRF	0019.0	0021.1	5.3	11.0			QL=5 ST=2 TYP=2

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
25	15400	LEAR	20	GRF	0019.1	0020.8	5.9	22.0			QL=6 ST=2 TYP=2
	4995	LEAR	20	GRF	0019.1	0021.1	5.2	10.0			QL=6 ST=2 TYP=2
	9400	TYKW	28	PRE	0119.0	0125.0	6.0	6.0	3.0		
	3750	TYKW	5	S	0120.0	0128.2	13.0	35.0	10.0		
	2000	TYKW	28	PRE	0121.0	0124.0	6.0	2.0	1.5		
	1000	TYKW	42	SER	0122.4	0123.0	3.1	32.0	1.0		
	9400	TYKW	45	C	0125.0	0128.2	7.0	46.0	17.0		
	17000	NOBE	1	S	0125.1	0128.5	9.0	36.0			R
	8800	LEAR	4	S/F	0125.5	0128.1	5.1	48.0			QL=5 ST=3 TYP=3
	15400	LEAR	4	S/F	0125.6	0128.1	4.7	49.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0127.0	0128.3	4.0	14.0	6.0		
	1000	TYKW	45	C	0127.5	0127.9	3.5	40.0	3.0		
	4995	LEAR	4	S/F	0127.5	0128.1	2.6	36.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0127.6	0128.1	2.2	26.0			QL=6 ST=2 TYP=3
	2000	TYKW	29	PBI	0131.0		40.0	3.0	1.5		
	9400	TYKW	29	PBI	0132.0		30.0	8.0	3.0		
	3750	TYKW	30	PBI	0133.0		35.0	6.0	3.0		
	1000	TYKW	21	GRF	0220.0	0249.0	60.0	3.0	1.5		
	9400	TYKW	21	GRF	0225.0	0327.0	190.0	7.0	3.0		
	2000	TYKW	21	GRF	0225.0	0330.0	190.0	3.0	1.5		
	3750	TYKW	21	GRF	0225.0	0345.5	190.0	6.0	3.0		
	2000	TYKW	45	C	0309.0	0310.4	3.0	21.0	2.0		
	1000	TYKW	45	C	0309.0	0310.7	3.0	5.0	1.0		
	2000	TYKW	5	S	0339.0	0340.1	6.0	2.0	.7		
	3750	TYKW	45	C	0355.8	0356.0	2.0	4.0	1.5		
	2000	TYKW	5	S	0355.8	0356.0	5.0	2.0	.5		
	100	HIRA	8	S	0357.9	0358.0	.2	4000.0			WL
	2840	PEKG	45	C	0411.0	0414.5	11.0	281.0	69.8		
	3750	TYKW	5	S	0411.5	0412.2	1.5	3.0	1.0		
	1000	TYKW	8	S	0412.0	0412.1	.3	14.0	3.0		
	9395	PEKG	47	GB	0413.0	0414.4	7.0	794.0D	74.4D		
	1000	TYKW	47	GB	0413.5	0414.0	15.5	660.0	20.0		
	9400	TYKW	47	GB	0413.5	0414.4	8.5	960.0	80.0		
	2000	TYKW	45	C	0413.5	0414.5	15.5	135.0	28.0		
	3750	TYKW	45	C	0413.5	0414.5	15.5	430.0	50.0		
	4995	LEAR	49	GB	0413.6	0414.3	9.7	560.0			QL=6 ST=2 TYP=6
	8800	LEAR	49	GB	0413.6	0414.3	9.5	910.0			QL=5 ST=2 TYP=6
	17000	NOBE	3	S	0413.6	0414.4	2.9	583.0			R
	4995	MANI	47	GB	0413.7	0414.2	6.6	582.1	194.0		
	1415	MANI	4	S/F	0413.7	0414.5	6.3	48.3	16.1		
	15400	LEAR	49	GB	0413.8	0414.3	9.3	600.0			QL=6 ST=2 TYP=6
	2695	LEAR	47	GB	0413.8	0414.5	12.7	260.0			QL=6 ST=2 TYP=5
	17000	NOBE	30	PBI	0416.5	0416.5	17.0	24.0			R
	17000	NOBE	1	S	0417.7	0418.1	1.5	18.0			R
	610	LEAR	47	GB	0419.1	0420.1	1.9	52.0			QL=6 ST=2 TYP=5
	9395	PEKG	29	PBI	0420.0		18.0	22.4	16.0		
	17000	NOBE	1	S	0421.9	0422.1	1.0	23.0			R
	9400	TYKW	30	PBI	0422.0		25.0	14.0	5.0		
	2840	PEKG	29	PBI	0422.0		22.0	27.3	13.8		
	9400	TYKW	5	S	0425.0	0425.2	1.0	8.0	2.0		
	1000	TYKW	29	PBI	0429.0		40.0	3.0	1.0		
	2000	TYKW	29	PBI	0429.0		35.0	9.0	3.0		
	3750	TYKW	30	PBI	0429.0		60.0	10.0	4.0		
	2000	TYKW	5	S	0508.3	0508.6	1.0	3.0	1.0		
	3750	TYKW	5	S	0508.3	0508.6	2.5	7.0	2.0		
	245	LEAR	8	S	0549.1	0549.3	.2	21.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0549.1	0549.3	.2	6.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0549.1	0549.3	.2	10.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0602.0	0602.9	8.0	7.0	2.0D		
	3100	CRIM	1	S	0630.6	0630.9	2.0	7.0	2.0		
	2000	TYKW	5	S	0631.0	0631.3	4.0	5.0	1.5		
	3750	TYKW	5	S	0631.0	0631.3	5.0	8.0	2.5		
	9400	TYKW	5	S	0631.0	0631.4	5.0	13.0	4.0		
	2695	LEAR	4	S/F	0631.0	0631.1	2.8	8.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0631.0	0631.3	3.3	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0631.0	0631.5	3.8	18.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0631.0	0631.8	1.0	10.0			QL=6 ST=2 TYP=3
	2950	GORK	1	S	0632.1	0632.2	.8	9.2			
	9100	GORK	1	S	0632.1	0632.3	1.2	18.0	9.0		
	100	HIRA	42	SER	0647.3	0647.3	5.6	1200.0			WL
	245	LEAR	8	S	0652.3	0652.5	.5	42.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
25	410	LEAR	8	S	0652.3	0652.5	.5	18.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0654.6	0655.1	1.0	16.0			QL=6 ST=2 TYP=3
	650	GORK	2	S/F	0655.3	0655.8	1.7	7.5			
	8800	LEAR	4	S/F	0725.5	0730.1	39.1	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0726.1	0726.3	.7	5.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0726.1	0726.3	.7	40.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0726.1	0726.3	.7	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0726.1	0726.3	.7	7.0			QL=6 ST=2 TYP=3
	2950	GORK	1	S	0727.3	0731.2	6.3	6.6			
	4995	LEAR	4	S/F	0728.0	0730.1	27.0	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0743.1	0743.1	.2	11.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0743.1	0743.1	.2	8.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0743.1	0743.1	.2	4.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0743.1	0743.1	.2	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0754.3	0755.3	1.3	40.0			QL=6 ST=2 TYP=3
	650	GORK	41	F	0807.0	0807.5	3.2	9.0			
	650	GORK			0807.0	0808.5		77.0			
	650	GORK			0807.0	0810.0		14.0			
	8800	ATHN	4	S/F	0807.6	0808.8	4.2	48.0			QL=2 ST=2 TYP=3
	2695	ATHN	4	S/F	0807.6	0810.3	3.5	38.0			QL=2 ST=2 TYP=3
	430	KRAK	42	SER	0808.0	0808.5	292.0	174.0			
	3100	BERN	45	C	0808.0	0808.7	11.0	35.0			
	5200	BERN	45	C	0808.0	0808.7	11.0	69.0			
	2950	GORK	45	C	0808.0	0808.8	3.2	30.0			
	8400	BERN	45	C	0808.0	0808.8	11.0	109.0			
	9500	POTS	4	S/F	0808.0	0808.8	5.0	85.0			
	9100	GORK	46	C	0808.0	0808.9	2.9	98.0			
	4995	ATHN	47	GB	0808.0	0809.0	4.1	74.0			QL=2 ST=2 TYP=5
	11800	BERN	45	C	0808.0	0810.0	11.0	90.0			
	19600	BERN	45	C	0808.0	0810.0	11.0U	45.0			
	9100	GORK			0808.0	0810.1		103.0			
	2950	GORK			0808.0	0810.1		40.0			
	1415	ATHN	4	S/F	0808.0	0810.3	2.6	10.0			QL=2 ST=2 TYP=3
	3000	POTS	4	S/F	0808.0	0810.3	5.0	88.0			
	1470	POTS	4	S/F	0808.0	0810.3	4.5	14.0			
	430	KRAK			0808.0	0811.2		167.0			
	430	KRAK			0808.0	0935.0		124.0			
	430	KRAK			0808.0	1119.5		43.0			
	430	KRAK			0808.0	1222.0		34.0			
	610	LEAR	47	GB	0808.1	0808.6	.9	110.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0808.1	0808.6	4.0	110.0			QL=5 ST=2 TYP=5
	4995	LEAR	47	GB	0808.1	0808.8	4.0	68.0			QL=6 ST=2 TYP=5
	2695	LEAR	4	S/F	0808.1	0810.1	4.0	42.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0808.1	0810.3	4.0	19.0			QL=6 ST=2 TYP=3
	810	KRAK	42	SER	0808.2	0808.7	3.2	160.0			
	810	KRAK			0808.2	0810.0		220.0			
	950	GORK	2	S/F	0808.2	0810.3	3.0	17.0			
	410	LEAR	47	GB	0808.3	0808.6	.5	71.0			QL=6 ST=2 TYP=5
	15400	LEAR	47	GB	0808.3	0810.0	3.0	64.0			QL=6 ST=2 TYP=5
	3000	IZMI	40	F	0808.3	0810.9	5.0	20.0	14.0		
	2650	DWIN	2	S/F	0809.0	0810.0	5.0	40.0	20.0		
	9100	GORK	29	PBI	0810.9	0810.9	37.0	20.0			
	950	GORK	29	PBI	0811.2	0811.2	5.2	2.0			
	2950	GORK	29	PBI	0811.2	0811.3	43.5	14.4			
	810	KRAK	3	S	0842.0	0842.5	2.0	16.0	8.0		
	3100	CRIM	26	FAL	0845.0	0940.0		6.0			
	3100	CRIM	45	C	0908.0	0908.8	8.0	36.0	16.0		
	3100	CRIM			0908.0	0910.0		48.0			
	810	KRAK	8	S	0948.5	0948.5	.2	10.0			
	536	ONDR	8	S	1014.5	1014.5	.2	6.0			
	810	KRAK	8	S	1023.0	1023.0	.2	240.0			
	810	KRAK	8	S	1114.0	1114.0	.2	23.0			
	810	KRAK	8	S	1120.8	1121.0	.3	95.0			
	808	ONDR	8	S	1121.0	1121.5	1.0	47.0			
	536	ONDR	42	SER	1208.0	1208.0	1.5	9.0			
	8800	ATHN	8	S	1220.1	1220.6	1.2	17.0			QL=2 ST=2 TYP=3
	1415	ATHN	47	GB	1220.3	1220.6	1.8	62.0			QL=2 ST=2 TYP=5
	2695	ATHN	47	GB	1220.3	1220.6	1.8	67.0			QL=2 ST=2 TYP=5
	4995	ATHN	8	S	1220.3	1220.6	1.8	34.0			QL=2 ST=2 TYP=3
	3100	CRIM	3	S	1220.5	1221.4	4.0	51.0	17.0		
	2650	DWIN	1	S	1221.0	1221.0	1.0	50.0	20.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
25	808	ONDR	8	S	1221.0	1221.5	1.0	45.0			
	11800	BERN	3	S	1221.0	1221.5	1.0	41.0			
	19600	BERN	3	S	1221.0	1221.5	1.0	39.0			
	3100	BERN	3	S	1221.0	1221.6	20.0	52.0			
	8400	BERN	3	S	1221.0	1221.6	7.0	33.0			
	5200	BERN	3	S	1221.0	1221.7	20.0	36.0			
	3000	POTS	3	S	1221.0	1221.8	4.0	40.0			
	9400	HUAN	3	S	1221.1	1221.5	1.4	31.7	12.8		R
	9500	POTS	3	S	1221.2	1221.5	1.3	30.0			
	1470	POTS	3	S	1221.5	1221.5	3.5	44.0			
	810	KRAK	8	S	1221.5	1221.8	.5	750.0			
	9400	HUAN	29	PBI	1222.5	1222.5	7.1	5.5	3.6		0
	1415	ATHN	4	S/F	1303.3	1304.0	4.5	23.0			QL=2 ST=2 TYP=3
	2695	ATHN	47	GB	1303.3	1304.1	3.0	74.0			QL=2 ST=2 TYP=5
	4995	ATHN	47	GB	1303.3	1304.1	3.0	83.0			QL=2 ST=2 TYP=5
	8800	ATHN	4	S/F	1303.3	1304.1	2.3	47.0			QL=2 ST=2 TYP=3
	536	ONDR	8	S	1303.5	1303.5	1.0	123.0			
	9500	POTS	3	S	1303.5	1304.0	5.5	89.0			
	410	SGMR	49	GB	1303.8	1303.8	1.2	770.0			QL=6 ST=2 TYP=6
	610	SGMR	47	GB	1303.8	1303.8	1.2	76.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1303.8	1304.1	2.3	69.0			QL=6 ST=2 TYP=5
	5200	BERN	3	S	1303.8	1304.1	28.0	114.0			
	11800	BERN	3	S	1303.8	1304.1	18.0	72.0			
	8400	BERN	3	S	1303.8	1304.1	18.0	106.0			
	19600	BERN	3	S	1303.8	1304.1	3.0U	21.0			
	4995	SGMR	47	GB	1303.8	1304.1	3.0	96.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1303.8	1304.1	2.3	119.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1303.8	1304.1	1.3	87.0			QL=6 ST=2 TYP=5
	1415	SGMR	4	S/F	1303.8	1304.1	3.0	36.0			QL=6 ST=2 TYP=3
	3100	BERN	3	S	1303.8	1304.1	28.0	98.0			
	3000	POTS	4	S/F	1303.9	1304.0	6.1	63.0			
	2650	DWIN	1	S	1304.0	1304.0	2.0	80.0	40.0		
	2800	OTTA	3	S	1304.0	1304.2	3.0	69.0	27.0		
	810	KRAK	8	S	1304.0	1304.0	.5	560.0			
	430	KRAK	8	S	1304.0	1304.5	.5	500.0D			
	1470	POTS	3	S	1304.0	1304.5	4.0	26.0			
	808	ONDR	8	S	1305.0	1305.0	.1	15.0			
	9400	HUAN	1	S	1315.6	1316.7	3.1	9.6	3.1		R
	9500	POTS	3	S	1316.0	1317.0	2.0	11.0			
	4995	ATHN	4	S/F	1316.1	1316.5	3.4	18.0			QL=2 ST=2 TYP=3
	610	SGMR	47	GB	1316.1	1316.6	1.5	119.0			QL=6 ST=2 TYP=5
	536	ONDR	8	S	1316.5	1316.8	1.0	55.0			
	4995	SGMR	8	S	1316.6	1316.6	1.0	13.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1316.6	1316.8	1.2	21.0			QL=6 ST=2 TYP=3
	9400	HUAN	29	PBI	1318.7	1318.7	10.9	2.1	1.2		0
	2800	OTTA	1	S	1359.0	1359.1	1.0	2.2	1.1		
	9400	HUAN	21	GRF	1513.1	1530.3	32.3	2.8	0.8		0
	2800	OTTA	1	S	1527.0	1527.5	3.0	4.0	2.0		
	9400	HUAN	1	S	1527.0	1527.5	2.7	15.2	6.7		R
	4995	SGMR	8	S	1527.1	1527.3	1.5	19.0			QL=6 ST=2 TYP=3
	8800	SGMR	4	S/F	1527.1	1527.3	2.2	26.0			QL=6 ST=2 TYP=3
	9400	HUAN	1	S	1647.2	1647.7	1.4	9.0	2.8		0
	9400	HUAN	1	S	1825.5	1825.9	1.1	11.0	3.6		0
	2000	TYKW	45	C	2306.0	2308.4	4.0	5.0	2.0		
	3750	TYKW	45	C	2306.0	2308.4	3.5	4.0	2.0		
	9400	TYKW	45	C	2306.5	2306.8	2.5	4.0	1.5		
	3750	TYKW	5	S	2346.0	2346.6	4.0	1.5	.5		
26	260	ONDR	44	NS	1012.0E		252.0D				
	245	LEAR	43	NS	2149.0	1026.0	764.0D	31.0			QL=6 ST=2 TYP=1
	610	LEAR	47	GB	0014.6	0014.6	.2	180.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	0014.6	0015.0	.5	10.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0015.6	0016.1	.9	76.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0022.1	0022.3	.7	9.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0022.3	0022.8	1.3	40.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0022.6	0022.8	.7	5.0			QL=6 ST=2 TYP=3
	500	HIRA	7	C	0036.8	0036.8	.8	60.0	20.0		WL
	3750	TYKW	21	GRF	0107.0	0123.0	35.0	3.0	1.5		
	3750	TYKW	5	S	0108.0	0109.3	3.0	2.0	.7		
	9395	PEKG	28	PRE	0149.0	0220.0	31.0	18.4	9.1		
	3750	TYKW	28	PRE	0153.0	0219.0	26.0	7.0	2.5		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
26	9400	TYKW	28	PRE	0154.0	0219.0	25.0	8.0	4.0		
	2840	PEKG	28	PRE	0154.0	0219.0	25.0U	32.7	8.2		
	2000	TYKW	47	GB	0216.0	0239.3	80.0	2380.0	280.0		
	1415	MANI	47	GB	0216.5	0231.6	91.5	2070.0	690.0		
	200	HIRA	48	C	0217.8	0238.0	98.0	580.0	74.0		WL
	4995	MANI	47	GB	0218.0	0234.0	90.0	7772.3	2590.8		
	1000	TYKW			0219.0	0232.4		2150.0			
	9400	TYKW	47	GB	0219.0	0234.3	200.0	8400.0	760.0		
	3750	TYKW	47	GB	0219.0	0234.3	55.0	2940.0	1070.0		
	1000	TYKW	47	GB	0219.0	0326.2	100.0	4210.0	200.0		
	2840	PEKG	47	GB	0219.0	0248.0	31.0D	1369.0			
	4995	LEAR	49	GB	0219.6	0224.0	15.5	219.0			QL=6 ST=2 TYP=7
	2695	LEAR	49	GB	0219.6	0224.6	15.5	160.0			QL=6 ST=2 TYP=7
	8800	LEAR	49	GB	0219.6	0224.6	15.5	160.0			QL=6 ST=2 TYP=7
	17000	NOBE	47	GB	0219.6	0234.3	42.0	5800.0			R
	1415	LEAR	49	GB	0219.8	0224.5	15.3	110.0			QL=6 ST=2 TYP=7
	9395	PEKG	47	GB	0220.0	0234.3	69.0	3698.0D			
	15400	LEAR	49	GB	0220.1	0224.5	15.0	70.0			QL=6 ST=2 TYP=7
	500	HIRA			0220.2	0236.9		800.0			ML
	500	HIRA	48	C	0220.2	0256.6	73.0	1100.0	250.0		SL
	500	HIRA			0220.2	0306.0		700.0			SL
	245	LEAR	49	GB	0221.1	0222.6	1.5	13.0			QL=6 ST=2 TYP=7
	100	HIRA	48	C	0221.5	0232.7U	71.0D	10000.0	650.0		
	100	HIRA			0221.5	0240.5		8900.0			WL
	208	VORO	48	C	0222.0	0230.0U	50.0D	200.0D			
	610	LEAR	49	GB	0222.1	0224.3	13.0	43.0			QL=6 ST=2 TYP=7
	410	LEAR	49	GB	0227.6	0228.8	7.5	29.0			QL=6 ST=2 TYP=7
	1415	LEAR	49	GB	0235.1	0235.3	20.0	1100.0			QL=6 ST=2 TYP=6
	2695	LEAR	49	GB	0235.1	0235.3	20.0	1199.0			QL=6 ST=2 TYP=6
	245	LEAR	47	GB	0235.1	0235.3	20.0	410.0			QL=6 ST=2 TYP=5
	4995	LEAR	49	GB	0235.1	0235.3	20.0	6000.0			QL=6 ST=2 TYP=6
	8800	LEAR	49	GB	0235.1	0235.3	20.0	8600.0			QL=6 ST=2 TYP=6
	15400	LEAR	49	GB	0235.1	0235.3	20.0	7600.0			QL=6 ST=2 TYP=6
	410	LEAR	47	GB	0235.1	0235.3	20.0	390.0			QL=6 ST=2 TYP=5
	610	LEAR	49	GB	0235.1	0235.3	20.0	720.0			QL=6 ST=2 TYP=6
	1415	LEAR	49	GB	0255.1	0255.1	12.2	540.0			QL=6 ST=2 TYP=6
	410	LEAR	47	GB	0255.1	0255.1	12.2	230.0			QL=6 ST=2 TYP=5
	15400	LEAR	49	GB	0255.1	0255.1	12.2	7600.0			QL=6 ST=2 TYP=6
	8800	LEAR	49	GB	0255.1	0255.1	12.2	8600.0			QL=6 ST=2 TYP=6
	4995	LEAR	49	GB	0255.1	0255.1	12.2	6000.0			QL=6 ST=2 TYP=6
	2695	LEAR	49	GB	0255.1	0255.1	12.2	1600.0			QL=6 ST=2 TYP=6
	610	LEAR	49	GB	0255.1	0255.3	12.2	510.0			QL=6 ST=2 TYP=6
	17000	NOBE	29	PBI	0301.6	0301.6	22.0	282.0			R
	410	LEAR	47	GB	0307.3	0307.3	59.7	380.0			QL=6 ST=2 TYP=5
	610	LEAR	49	GB	0307.3	0307.8	59.7	880.0			QL=6 ST=2 TYP=6
	1415	LEAR	49	GB	0307.3	0311.3	59.7	470.0			QL=6 ST=2 TYP=6
	208	VORO	4	S/F	0313.0	0314.0	3.0D	27.0			
	3750	TYKW	30	PBI	0314.0		230.0D	107.0	55.0D		
	3750	TYKW	5	S	0317.0	0319.2	6.0	10.0	4.0		
	208	VORO	41	F	0318.0	0318.0	2.0	200.0D			
	3750	TYKW	5	S	0323.0	0326.1	10.0	20.0	7.0D		
	208	VORO	41	F	0325.0	0325.0	1.5	200.0D			
	9395	PEKG	29	PBI	0329.0		43.0D	70.1			
	2000	TYKW	30	PBI	0336.0		205.0D	40.0	25.0D		
	2000	TYKW	45	C	0342.0	0347.3	18.0	6.0	3.0		
	3750	TYKW	45	C	0343.0	0347.4	17.0	7.0	5.0		
	1000	TYKW	30	PBI	0359.0		80.0	4.0	2.0		
	3750	TYKW	29	PBI	0400.0		25.0	4.0	2.0		
	2000	TYKW	30	PBI	0400.0		30.0	3.0	1.5		
	1000	TYKW	45	C	0411.0	0412.7	2.5	17.0	4.0		
	2000	TYKW	5	S	0411.0	0413.0	5.0	2.0	1.0		
	2000	TYKW	5	S	0417.0	0420.0	7.0	2.0	.7		
	3750	TYKW	5	S	0438.0	0439.3	4.0	2.0	1.0		
	2000	TYKW	5	S	0438.0	0439.5	5.0	2.5	1.0		
	3750	TYKW	5	S	0444.0	0448.0	20.0	2.0	1.0		
	2000	TYKW	20	GRF	0445.0	0510.0	55.0	3.0	1.5		
	3750	TYKW	20	GRF	0506.0	0520.0	35.0	3.0	1.5		
	9400	TYKW	30	PBI	0539.0		80.0D	60.0	55.0D		
	1000	TYKW	45	C	0547.5	0551.9	9.5	20.0	3.0		
	9100	GORK	22	GRF	0554.0E	0746.3	283.0D	31.0			
	2950	GORK	22	GRF	0557.0E	0614.0	320.0D	22.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
26	2000	TYKW	45	C	0601.0	0602.8	2.5	3.0	1.0		
	410	LEAR	8	S	0608.1	0608.1	.2	15.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0621.0	0621.6	2.0	12.0	3.0		
	2000	TYKW	5	S	0621.0	0621.7	2.0	4.0	1.0		
	1000	TYKW	5	S	0621.0	0621.7	2.0	3.0	1.0		
	3750	TYKW	5	S	0621.0	0621.7	2.0	6.0	2.0		
	1000	TYKW	5	S	0625.5	0626.0	1.5	12.0	3.5		
	245	LEAR	47	GB	0627.1	0627.3	.2	55.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	0627.1	0627.3	.2	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0705.1	0705.1	.2	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0705.1	0705.1	.2	6.0			QL=6 ST=2 TYP=3
	3100	CRIM	26	FAL	0730.0	0800.0		11.0			
	810	KRAK	8	S	0837.4	0837.5	.3	23.0			
	610	LEAR	8	S	0837.8	0838.0	.3	28.0			QL=6 ST=2 TYP=3
	9500	POTS	20	GRF	0925.0	0936.3	35.0	8.0			
	1470	POTS	40	F	1205.0	1216.7	35.0	11.0			
	2800	OTTA	21	GRF	1420.0	1425.0	60.0	2.0	1.0		
	2800	OTTA	3	S	1506.2	1506.5	1.5	48.0	9.6		
	245	SGMR	47	GB	1506.3	1506.6	1.3	470.0			QL=6 ST=2 TYP=5
	2695	SGMR	8	S	1506.5	1506.6	1.1	36.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1506.5	1506.6	1.1	50.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1506.5	1506.6	1.1	25.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1506.5	1506.6	1.1	25.0			QL=6 ST=2 TYP=3
	15400	SGMR	8	S	1506.5	1506.6	1.1	15.0			QL=6 ST=2 TYP=3
	610	SGMR	8	S	1507.8	1508.1	1.3	28.0			QL=6 ST=2 TYP=3
	1415	SGMR	47	GB	1610.6	1611.0	2.2	490.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1610.6	1611.1	4.9	3800.0			QL=6 ST=2 TYP=6
	410	SGMR	49	GB	1610.6	1611.1	3.0	2199.0			QL=6 ST=2 TYP=6
	610	SGMR	49	GB	1610.6	1611.1	3.0	3899.0			QL=6 ST=2 TYP=6
	2800	OTTA	4	S/F	1610.7	1611.2	1.5	133.0	16.6		
	2695	SGMR	47	GB	1611.1	1611.3	1.2	100.0			QL=6 ST=2 TYP=5
	2800	OTTA	260	FAL	1710.0	1730.0	20.0	-2.8	-1.4		
	410	SGMR	47	GB	1800.6	1800.8	2.7	52.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1800.6	1800.8	2.7	180.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1800.6	1801.3	2.9	180.0			QL=6 ST=2 TYP=5
	2800	OTTA	8	S	1802.1	1802.1	.1	3.4			
	1415	SGMR	8	S	1802.1	1802.3	1.2	20.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1859.1	1859.5	3.7	93.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1859.1	1859.5	3.7	200.0			QL=6 ST=2 TYP=5
	2800	OTTA	3	S	1942.0	1942.8	13.0	467.0	50.0		
	410	SGMR	49	GB	1942.1	1942.3	7.7	10000.0			QL=6 ST=2 TYP=6
	1415	SGMR	49	GB	1942.1	1942.5	8.5	910.0			QL=6 ST=2 TYP=6
	610	SGMR	49	GB	1942.1	1943.6	7.0	1100.0			QL=6 ST=2 TYP=6
	8800	SGMR	47	GB	1942.3	1942.3	1.5	219.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1942.3	1942.3	1.5	100.0			QL=6 ST=2 TYP=5
	245	SGMR	49	GB	1942.3	1942.5	12.0	2300.0			QL=6 ST=2 TYP=6
	2695	SGMR	49	GB	1942.3	1942.5	8.3	600.0			QL=6 ST=2 TYP=6
	4995	SGMR	47	GB	1942.3	1942.5	4.5	460.0			QL=6 ST=2 TYP=5
	2800	OTTA	31	ABS	1955.0	2010.0	30.0	-3.2	-1.8		
	2800	OTTA	20	GRF	2035.0		70.0	6.2	4.4		
	9400	HUAN	20	GRF	2036.0	2103.2	52.6	11.1	5.6		0
	500	HIRA	42	SER	2203.0	2204.0	3.0	210.0			WL
	610	LEAR	47	GB	2204.0	2204.1	.8	290.0			QL=5 ST=2 TYP=5
	245	LEAR	47	GB	2204.0	2204.6	.8	160.0			QL=5 ST=2 TYP=5
	410	LEAR	47	GB	2204.0	2204.6	.8	72.0			QL=5 ST=2 TYP=5
	245	LEAR	47	GB	2219.1	2219.1	.5	300.0			QL=6 ST=2 TYP=5
	1000	TYKW	5	S	2219.1	2219.4	.6	9.0	1.5		
	245	LEAR	8	S	2237.3	2237.6	.5	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2237.3	2237.6	.5	10.0			QL=6 ST=2 TYP=3
	500	HIRA	42	SER	2237.3	2241.6	5.0	80.0			WL
	410	LEAR	8	S	2238.6	2238.8	.5	24.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	2240.4	2240.7	1.5	52.0	2.0		
	2000	TYKW	45	C	2240.4	2241.0	1.0	5.0	1.5		
	245	LEAR	8	S	2241.5	2242.8	1.5	10.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	2241.8	2242.0	.8	48.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	2241.8	2242.0	.8	60.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	2356.6	2357.3	1.5	13.0			QL=6 ST=2 TYP=3
27	245	LEAR	43	NS	0417.0	1004.3	376.0D	95.0			QL=6 ST=2 TYP=1
	260	ONDR	44	NS	0845.0E		302.0D				
	200	GORK	43	NS	1000.0		61.0		5.0		

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 −22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
27	245	SGMR	43	NS	1213.0	1330.8	516.0	110.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0023.1	0023.1	.2	10.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0023.1	0023.1	.2	4.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0023.1	0023.1	.2	13.0			QL=6 ST=2 TYP=3
	610	LEAR	4	S/F	0133.1	0135.8	4.2	10.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	0234.6	0235.0	1.0	3.0	.7		
	245	LEAR	47	GB	0234.6	0235.3	1.0	440.0			QL=6 ST=2 TYP=5
	1000	TYKW	5	S	0236.0	0236.3	1.0	4.0	1.5		
	208	VORO	41	F	0303.0	0306.0	4.0	200.0D			
	200	HIRA	42	SER	0303.5	0304.0	2.5	95.0			O
	3750	TYKW	45	C	0304.5	0305.3	2.5	4.0	1.5		
	1000	TYKW	45	C	0304.6	0305.2	3.0	9.0	1.5		
	245	LEAR	47	GB	0304.8	0305.8	1.3	440.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	0305.8	0305.8	.2	10.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0307.0	0307.3	1.5	4.0	1.5		
	3750	TYKW	20	GRF	0345.0	0400.0	35.0	2.0	1.0		
	245	LEAR	47	GB	0415.8	0416.3	.7	119.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0440.0	0440.1	.6	24.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0440.1	0440.1	.5	4.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0440.1	0440.5	.5	5.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	0453.0	0453.7	1.5	33.0	7.0		
	3750	TYKW	5	S	0453.0	0453.7	3.5	2.0	.7		
	2000	TYKW	5	S	0453.3	0453.7	1.5	2.0	.7		
	1000	TYKW	5	S	0454.8	0455.1	.6	6.0	2.0		
	1000	TYKW	45	C	0455.5	0456.8	2.5	39.0	9.0		
	2000	TYKW	5	S	0455.6	0455.8	.6	5.0	1.5		
	2840	PEKG	3	S	0456.0	0457.1	7.0	17.0	3.9		
	2000	TYKW	5	S	0456.5	0456.9	5.0	13.0	3.0		
	3750	TYKW	5	S	0456.5	0456.9	3.5	20.0	8.0		
	9400	TYKW	5	S	0456.6	0457.0	6.0	6.0	1.5		
	1415	LEAR	8	S	0456.8	0456.8	1.8	10.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0456.8	0456.8	1.0	17.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0456.8	0456.8	1.3	18.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0456.8	0456.8	1.8	10.0			QL=5 ST=2 TYP=3
	3750	TYKW	29	PBI	0500.0		5.0	3.0	1.0		
	3750	TYKW	20	GRF	0515.0	0530.0	35.0	3.0	1.5		
	245	LEAR	47	GB	0530.6	0530.6	.2	88.0			QL=6 ST=2 TYP=5
	610	LEAR	8	S	0549.8	0550.0	.3	5.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0549.8	0550.0	.3	10.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0549.8	0550.0	.3	5.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0609.3	0609.5	.3	25.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0609.3	0609.5	.3	4.0			QL=6 ST=2 TYP=3
	950	GORK	21	GRF	0615.7	0642.0	30.0	4.0			
	200	HIRA	42	SER	0617.5	0628.5	14.5	710.0			O
	100	HIRA	42	SER	0618.0	0626.6	13.0	320.0			WL
	950	GORK	2	S/F	0618.3	0619.6	2.5	30.0			
	2000	TYKW	5	S	0619.0	0619.6	3.0	7.0	2.0		
	3750	TYKW	5	S	0619.0	0619.6	3.0	6.0	2.0		
	1000	TYKW	45	C	0619.0	0619.7	2.0	67.0	7.0		
	3750	TYKW	5	S	0626.5	0627.0	4.5	12.0	3.0		
	2000	TYKW	5	S	0626.5	0627.2	5.0	15.0	4.0		
	1000	TYKW	45	C	0626.5	0627.3	1.5	9.0	3.0		
	500	HIRA	8	S	0626.6	0626.6	.5	400.0			O
	950	GORK	1	S	0627.0	0627.2	1.7	4.0			
	245	LEAR	8	S	0726.8	0726.8	.2	6.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0726.8	0726.8	.2	10.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0746.8	0746.8	.2	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0746.8	0746.8	.2	8.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0805.1	0805.1	.2	20.0			QL=6 ST=2 TYP=3
	810	KRAK	8	S	0813.3	0813.4	.3	15.0			
	810	KRAK	8	S	0816.5	0816.6	.3	8.0			
	650	GORK	2	S/F	0817.0	0817.3	.9	4.5			
	430	KRAK	8	S	0817.2	0817.5	.5	54.0	3.0		
	410	LEAR	8	S	0817.3	0817.5	.5	10.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0817.3	0817.5	.5	11.0			QL=6 ST=2 TYP=3
	950	GORK	4	S/F	0832.0	0833.5	5.7	157.0			
	204	IZMI	41	F	0832.1	0833.8	3.5	700.0			
	200	GORK	4	S/F	0832.2	0832.8	3.5	30.0D			
	810	KRAK	4	S/F	0832.3	0833.3	5.0	26.0	5.0		
	245	LEAR	47	GB	0832.5	0832.6	2.5	210.0			QL=6 ST=2 TYP=5
	234	POTS	4	S/F	0832.5	0832.7	2.0	200.0	3.0		III

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m² Hz)	Flux Density Mean	Int	Remarks
27	100	GORK	4	S/F	0832.5	0833.0U	1.5	110.0D			
	2950	GORK	4	S/F	0832.5	0833.7	4.3	25.0			
	100	GORK			0832.5	0833.8		110.0D			
	650	GORK	4	S/F	0832.5	0834.0	4.5	7.3			
	113	POTS	4	S/F	0832.6	0833.8	1.6	320.0	10.0		III
	1470	POTS	3	S	0832.7	0833.5	1.1	13.0			
	3000	POTS	3	S	0832.8	0833.6	1.2	18.0			
	430	KRAK	4	S/F	0833.0	0834.5	3.5	115.0	6.0		
	1415	LEAR	8	S	0833.3	0833.5	1.8	33.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0833.3	0833.6	5.8	39.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0833.3	0834.0	1.8	26.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0833.3	0834.0	1.8	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0903.6	0903.6	.2	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0903.6	0903.6	.2	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0910.6	0910.6	.2	15.0			QL=6 ST=2 TYP=3
	204	IZMI	5	S	0911.0	0911.1	.2	380.0	300.0		
	245	LEAR	8	S	0922.6	0922.6	.2	13.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0922.6	0922.6	.2	5.0			QL=6 ST=2 TYP=3
	204	IZMI	4	S/F	1004.0	1004.5	1.0	280.0	200.0		
	113	POTS	4	S/F	1004.5	1004.6	.4	120.0	8.0		III
	808	ONDR	41	F	1014.0	1014.0	1.5	12.0			
	1470	POTS	1	S	1014.5	1014.5	.5	5.0			
	810	KRAK	8	S	1015.0	1015.0	.1	15.0			
	810	KRAK	8	S	1018.5	1018.6	.5	58.0	3.0		
	430	KRAK	8	S	1034.0	1034.0	.1	21.0			
	113	POTS	4	S/F	1036.0	1036.0	.9	200.0	8.0		III
	204	IZMI	4	S/F	1037.8	1039.3	1.5U	640.0	250.0		
	430	KRAK	8	S	1037.9	1038.0	.2	14.0			
	260	ONDR	45	C	1218.0	1219.0	2.0	165.0	80.0		
	808	ONDR	45	C	1218.0	1220.0	4.0	303.0	118.0		
	234	POTS	4	S/F	1218.4	1218.5	1.8	350.0	20.0		III
	127	TORN	4	S/F	1218.4	1218.9	1.5				
	33	UPIC	45	C	1218.5	1218.6	1.2				
	113	POTS	4	S/F	1218.5	1218.6	.8	1800.0	120.0		III
	29	UPIC	4	S/F	1218.5	1218.8	.9U				
	1470	POTS	45	C	1219.0	1220.3	2.0	255.0			
	430	KRAK	8	S	1248.7	1249.0	.5	73.0			
	810	KRAK	8	S	1249.0	1249.3	.3	15.0			
	430	KRAK	8	S	1300.3	1300.3	.1	120.0			
	245	SGMR	49	GB	1300.6	1300.6	1.2	690.0			QL=6 ST=2 TYP=6
	410	SGMR	8	S	1300.6	1300.6	.2	20.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	1300.7	1300.8	.3	300.0	50.0		III
	113	POTS	4	S/F	1300.8	1300.8	.4	700.0	70.0		III
	430	KRAK	8	S	1304.5	1304.5	.1	12.0			
	810	KRAK	42	SER	1330.0	1330.7	1.3	50.0			
	127	TORN	8	S	1330.4	1331.0	1.0	300.0	150.0		
	234	POTS	4	S/F	1330.5	1330.6	.8	125.0	10.0		III
	2800	OTTA	20	GRF	1450.0	1457.0	15.0	3.0	1.5		
	1415	SGMR	8	S	1524.8	1525.0	1.2	19.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1525.0	1525.3	1.1	22.0			QL=6 ST=2 TYP=3
	245	SGMR	8	S	1525.0	1525.3	1.1	21.0			QL=6 ST=2 TYP=3
	9400	HUAN	20	GRF	1534.2	1551.2	34.8	4.1	1.5		0
	245	LEAR	47	GB	2357.1	2357.3	.2	78.0			QL=6 ST=2 TYP=5
28	245	LEAR	43	NS	0446.0	0633.1	348.0D	29.0			QL=6 ST=2 TYP=1
	260	ONDR	44	NS	0843.0E		364.0D				
	3750	TYKW	21	GRF	0010.0	0106.0	140.0	4.0	1.5		
	245	LEAR	47	GB	0028.6	0028.8	.2	13.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0028.6	0028.8	.2	7.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0119.0	0119.8	3.0	2.0	.5		
	245	LEAR	8	S	0127.8	0127.8	.2	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0129.0	0129.7	3.0	2.0	.7		
	3750	TYKW	20	GRF	0146.0	0152.0	40.0	1.5	.7		
	1000	TYKW	45	C	0235.7	0236.4	1.3	1.5	.7		
	9400	TYKW	5	S	0236.0	0236.3	1.0	4.0	1.5		
	2000	TYKW	5	S	0236.0	0236.3	.7	3.0	1.0		
	2000	TYKW	45	C	0316.0	0320.8	6.0	5.0	1.5		
	3750	TYKW	5	S	0317.0	0320.8	6.0	7.0	1.0		
	3750	TYKW	5	S	0328.0	0329.5	12.0	1.5	.7		
	2000	TYKW	21	GRF	0401.0	0419.0	140.0	4.0	2.0		
	3750	TYKW	21	GRF	0401.0	0420.0	115.0	5.0	2.5		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
28	2000	TYKW	5	S	0402.0	0404.3	10.0	4.0	1.5		
	3750	TYKW	5	S	0402.0	0404.4	7.0	5.0	2.5		
	9400	TYKW	20	GRF	0402.0	0410.0	55.0	6.0	3.0		
	2840	PEKG	20	GRF	0402.0	0404.3	14.0	6.7	4.2		
	2840	PEKG	20	GRF	0402.0	0409.2	28.0	5.4	3.1		
	2000	TYKW	5	S	0425.2	0425.7	1.5	2.0	.7		
	2000	TYKW	45	C	0429.0	0430.5	5.0	2.5	1.0		
	245	LEAR	8	S	0430.1	0430.3	.5	17.0			QL=6 ST=2 TYP=3
	2840	PEKG	45	C	0518.0	0521.9	11.0	41.0	5.8		
	2840	PEKG			0518.0	0522.4		37.7			
	245	LEAR	47	GB	0519.6	0520.6	2.5	210.0			QL=6 ST=3 TYP=5
	2000	TYKW	45	C	0520.0	0521.8	4.0	41.0	10.0		
	3750	TYKW	5	S	0520.0	0521.9	5.0	66.0	24.0		
	9400	TYKW	45	C	0520.0	0522.3	5.0	48.0	16.0		
	1000	TYKW	45	C	0520.0	0522.4	5.0	22.0	5.0		
	200	HIRA	46	C	0520.0	0522.0	4.0	350.0	27.0		0
	9395	PEKG	45	C	0520.0	0522.4	15.0	40.1	10.1		
	100	HIRA	46	C	0520.1	0521.7	3.5	230.0	41.0		0
	410	LEAR	8	S	0520.3	0521.3	1.8	11.0			QL=6 ST=3 TYP=3
	1415	MANI	3	S	0520.6	0522.6	3.1	21.8	7.3		
	4995	MANI	3	S	0520.6	0522.7	3.4	72.9	24.3		
	17000	NOBE	20	GRF	0520.9	0522.0	50.0	14.0			0
	500	HIRA	46	C	0521.1	0521.6	2.0	20.0	7.0		MR
	2000	TYKW	30	PBI	0524.0		11.0	2.5	1.0		
	245	LEAR	47	GB	0524.0	0524.1	.3	54.0			QL=6 ST=3 TYP=5
	3750	TYKW	29	PBI	0525.0		25.0	5.0	2.0		
	9400	TYKW	29	PBI	0525.0		25.0	6.0	3.0		
	2000	TYKW	5	S	0529.0	0531.0	5.0	2.0	.7		
	245	LEAR	47	GB	0549.6	0550.6	2.5	210.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0550.3	0551.3	1.8	11.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0554.0	0554.1	.3	54.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0555.3	0555.6	.3	25.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0555.5	0555.6	.1	7.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0555.5	0555.6	.1	9.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	0556.0	0557.6	3.0	12.0	4.0		
	9395	PEKG	1	S	0556.0	0557.6	6.0	9.7	2.6		
	8800	LEAR	4	S/F	0556.3	0557.6	4.8	44.0			QL=5 ST=2 TYP=3
	15400	LEAR	8	S	0557.1	0557.5	1.0	8.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	0559.0		10.0	4.0	2.0		
	245	LEAR	47	GB	0614.6	0614.8	.2	52.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0614.6	0614.8	.2	4.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0614.6	0614.8	.2	3.0			QL=6 ST=2 TYP=3
	650	GORK	21	GRF	0724.3	0733.2	12.9	3.5			
	650	GORK	2	S/F	0724.7	0724.7	.8	4.0			
	950	GORK	21	GRF	0724.9	0730.0	11.5	3.0			
	950	GORK	1	S	0725.1	0725.2	.3	6.0			
	200	GORK	41	F	0725.3	0725.8	7.2	15.0			
	200	GORK			0725.3	0732.2		30.0			
	245	LEAR	4	S/F	0730.6	0730.8	2.2	13.0			QL=6 ST=2 TYP=3
	650	GORK	4	S/F	0730.6	0732.3	2.6	38.0			
	950	GORK	2	S/F	0730.8	0732.2	2.0	13.5			
	610	LEAR	4	S/F	0731.5	0732.3	2.3	47.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0731.6	0732.1	1.7	5.0			QL=6 ST=2 TYP=3
	100	GORK	8	S	0731.8	0732.0	1.2	80.00			
	113	POTS	4	S/F	0731.9	0732.1	.6	300.0	70.0		III
	127	TORN	8	S	0731.9	0732.2	1.0	300.0	150.0		
	650	GORK	4	S/F	0843.5	0843.6	1.5	7.0			
	950	GORK	2	S/F	0843.5	0844.5	1.4	7.5			
	650	GORK	21	GRF	0850.4	0912.0	82.6	2.0			
	113	POTS	4	S/F	0910.0	0910.1	.2	360.0	70.0		III
	9100	GORK	20	GRF	0913.1	0915.8	7.4	13.0			
	245	LEAR	8	S	0923.5	0923.6	.1	21.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0923.5	0923.6	.1	7.0			QL=6 ST=2 TYP=3
	810	KRAK	42	SER	0930.0	0930.8	6.7	76.0			
	536	ONDR	42	SER	0930.0	0931.0	4.0	13.0			
	650	GORK	4	S/F	0930.4	0931.0	3.5	110.0			
	950	GORK	46	C	0930.6	0931.3	3.3	9.7			
	950	GORK			0930.6	0932.3		16.0			
	950	GORK			0930.6	0933.0		22.7			
	9100	GORK	20	GRF	0930.7	0931.4	1.5	12.0			
	610	LEAR	47	GB	0930.8	0931.0	1.8	110.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
28	430	KRAK	8	S	0931.0	0931.0	.2	12.0			
	808	ONDR	42	SER	0931.0	0932.5	2.0	10.0			
	1470	POTS	40	F	0936.5	0938.2	3.0	11.0			
	100	GORK	46	C	0936.6	0937.1	2.0	580.0			
	100	GORK			0936.6	0937.2		290.0			
	200	GORK	4	S/F	0936.6	0938.1	2.0	120.0			
	204	IZMI	41	F	0936.7	0937.8	2.0	27.0			
	245	LEAR	47	GB	0936.8	0936.8	1.5	230.0			QL=6 ST=2 TYP=5
	950	GORK	46	C	0936.8	0937.0	1.9	8.5			
	234	POTS	4	S/F	0936.8	0937.6	.9	180.0	4.0		III
	950	GORK			0936.8	0938.2		12.0			
	650	GORK	2	S/F	0936.9	0937.1	2.4	2.0			
	113	POTS	4	S/F	0936.9	0937.6	.9	280.0	30.0		III
	810	KRAK	1	S	0943.2	0943.6	1.0U	6.0	3.0		
	430	KRAK	8	S	0943.5	0943.5	.1U	22.0			
	950	GORK	21	GRF	0949.9	1000.0	28.5	2.0			
	950	GORK	4	S/F	0953.5	0953.7	.5	18.7			
	1470	POTS	40	F	0955.0	0955.4	2.0	11.0			
	127	TORN	42	SER	1000.5	1002.8	11.7	900.0			
	650	GORK	41	F	1000.9	1004.6	5.3	19.0			
	650	GORK			1000.9	1005.7		408.0			
	1470	POTS	40	F	1001.0	1005.7	8.0	14.0			
	4995	LEAR	4	S/F	1001.1	1002.8	3.2	7.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	1001.8	1003.0	2.2	10.0			QL=6 ST=2 TYP=3
	9100	GORK	20	GRF	1002.1	1002.1	26.6	10.0			
	33	UPIC	45	C	1002.1	1002.7	1.6				
	29	UPIC	45	C	1002.1	1002.9	2.3				
	245	LEAR	47	GB	1002.3	1002.5	1.8	200.0			QL=6 ST=3 TYP=5
	204	IZMI	5	S	1002.3	1002.5	1.0	400.0	250.0		
	234	POTS	41	F	1002.3	1002.6	1.8	125.0	2.0		III
	204	IZMI	5	S	1002.3	1003.0	1.2	9.0	5.0		
	113	POTS	41	F	1002.3	1003.6	5.2	200.0	5.0		III
	8800	LEAR	8	S	1002.5	1002.6	1.0	11.0			QL=6 ST=2 TYP=3
	2950	GORK	1	S	1002.5	1003.0	1.5	7.9			
	430	KRAK	42	SER	1002.5	1003.0	3.7	59.0			
	536	ONDR	42	SER	1003.0	1006.0	3.5	54.0			
	100	GORK	41	F	1003.2E	1003.3	5.2D	90.0			
	100	GORK			1003.2E	1004.5		28.0			
	810	KRAK	42	SER	1003.2	1005.6	16.7	680.0			
	100	GORK			1003.2E	1007.2		65.0			
	610	LEAR	47	GB	1003.8	1005.6	2.3	380.0			QL=6 ST=2 TYP=5
	200	GORK	41	F	1003.9	1004.1	4.2	15.0			
	200	GORK			1003.9	1006.8		90.0			
	950	GORK	2	S/F	1004.3	1004.4	.5	9.0			
	950	GORK	4	S/F	1005.5	1005.6	.6	168.0			
	1415	LEAR	8	S	1005.5	1006.0	1.0	27.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	1005.6	1005.6	.4	10.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	1005.6	1005.6	2.5	11.0			QL=6 ST=2 TYP=3
	808	ONDR	8	S	1006.0	1006.5	1.0	364.0			
	4995	LEAR	8	S	1006.8	1007.8	1.5	5.0			QL=6 ST=2 TYP=3
	950	GORK	4	S/F	1007.6	1007.8	.6	22.0			
	950	GORK	4	S/F	1009.0	1009.4	.6	17.5			
	650	GORK	2	S/F	1010.6	1011.6	1.3	11.0			
	1470	POTS	40	F	1019.5	1019.9	2.5	7.0			
	430	KRAK	42	SER	1028.7	1029.0	4.0	53.0			
	6100	KISV	2	S/F	1030.5	1031.5	3.0	4.0			
	536	ONDR	42	SER	1033.0	1033.0	3.5	9.0			
	810	KRAK	8	S	1042.3	1042.3	.1	19.0			
	6100	KISV	2	S/F	1102.1	1102.6	2.0	4.0U			
	113	POTS	4	S/F	1132.3	1132.3	.1	200.0	8.0		
	810	KRAK	8	S	1132.5	1132.7	.5	25.0			
	810	KRAK	42	SER	1144.5	1144.5	.5	19.0			
	536	ONDR	45	C	1209.0	1210.0	1.0	12.0			
	810	KRAK	42	SER	1209.3	1209.5	.7	24.0			
	1470	POTS	40	F	1232.5	1235.8	5.5	29.0			
	810	KRAK	4	S/F	1234.0	1235.5	2.5	110.0	20.0		
	808	ONDR	46	C	1234.0	1235.5	3.0	52.0			
	113	POTS	4	S/F	1239.5	1239.6	1.3	770.0	30.0		III
	127	TORN	4	S/F	1239.5	1239.9	1.5	1100.0	200.0		
	430	KRAK	8	S	1240.0	1240.1	.3	6.0			
	810	KRAK	8	S	1242.2	1242.2	.1	13.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
28	2800	OTTA	1	S	1447.0	1449.0	5.0	5.0	2.5		
	2800	OTTA	20	GRF	1635.0	1700.0	90.0	6.4	3.2		
	2800	OTTA	23	GRF	1855.0	2040.0	220.0	7.2	3.0		
	2695	PENT	2	S/F	2001.0	2004.0	6.0	8.6	2.9		
	9400	HUAN	22	GRF	2001.2	2033.6	57.8	8.3	5.8		0
	1000	TYKW	45	C	2301.5	2302.0	2.0	26.0	4.0		
	2000	TYKW	5	S	2302.0	2302.7	1.5	4.0	1.5		
	3750	TYKW	5	S	2302.0	2302.7	1.5	5.0	1.5		
	9400	TYKW	5	S	2302.0	2302.7	2.0	9.0	2.5		
	9400	TYKW	45	C	2306.0	2306.4	5.0	23.0	5.0		
	3750	TYKW	45	C	2306.2	2306.5	3.5	7.0	2.0		
	15400	LEAR	8	S	2306.3	2306.3	1.0	18.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	2306.3	2306.3	2.5	28.0			QL=5 ST=3 TYP=3
	4995	LEAR	8	S	2306.3	2306.5	1.0	13.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	2306.8	2307.1	1.0	5.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	2333.5	2334.0	3.5	12.0	3.0U		
	4995	LEAR	8	S	2333.8	2334.0	.7	7.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2333.8	2334.0	1.0	11.0			QL=5 ST=3 TYP=3
	15400	LEAR	8	S	2333.8	2334.5	1.0	9.0			QL=6 ST=2 TYP=3
29	200	GORK	44	NS	0600.0E		351.0D		5.0		
	260	ONDR	44	NS	0828.0E		332.0D				
	245	SGMR	43	NS	1216.0	1742.6	511.0D	52.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2128.0E	0020.0	330.0D	15.0	5.0		WR
	245	LEAR	43	NS	2149.0	0828.0	766.0D	239.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2149.0	2215.1	766.0D	63.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2300.0E		300.0D		5.0		
	100	HIRA	43	NS	2327.0	0023.0	148.0	15.0	5.0		0
	610	LEAR	43	NS	2331.5	2335.8	4.8	24.0			QL=6 ST=2 TYP=1
	9400	TYKW	45	C	0010.0	0011.6	4.0	11.0	4.0		
	9400	TYKW	29	PBI	0014.0		8.0	3.0	1.5		
	500	HIRA	8	S	0024.0	0024.1	.3	25.0	15.0		0
	610	LEAR	8	S	0024.1	0024.3	.5	16.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0024.1	0024.5	.7	43.0			QL=6 ST=2 TYP=3
	200	HIRA	8	S	0024.3	0024.4	.6	260.0			0
	245	LEAR	47	GB	0024.3	0024.5	.8	86.0			QL=6 ST=2 TYP=5
	2000	TYKW	5	S	0201.5	0202.0	2.0	8.0	2.0		
	3750	TYKW	5	S	0201.5	0202.0	2.5	7.0	1.5		
	1415	LEAR	8	S	0201.6	0201.8	.7	7.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0201.7	0202.0	.7	1.5	.5		
	4995	LEAR	8	S	0201.8	0201.8	.8	7.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0201.8	0202.0	1.0	13.0			QL=6 ST=2 TYP=3
	500	HIRA	7	C	0222.7	0222.8	3.0	12.0	3.0		SR
	410	LEAR	4	S/F	0222.8	0222.8	3.3	10.0			QL=6 ST=2 TYP=3
	610	LEAR	20	GRF	0222.8	0223.0	3.3	3.0			QL=6 ST=2 TYP=2
	245	LEAR	8	S	0222.8	0223.0	.3	10.0			QL=6 ST=2 TYP=3
	6100	KISV	23	GRF	0655.5	0711.4	58.0	6.0			
	9100	GORK	20	GRF	0710.1	0711.5	7.8	10.5			
	950	GORK	46	C	0710.7	0711.3	3.3	16.0			
	950	GORK			0710.7	0712.0		17.0			
	1000	TYKW	45	C	0711.0	0711.3	2.0	45.0	10.0		
	1415	LEAR	4	S/F	0711.5	0712.6	2.1	32.0			QL=6 ST=2 TYP=3
	113	POTS	4	S/F	0727.1	0727.1	.3	120.0	10.0		
	3100	CRIM	26	FAL	0745.0	0845.0	60.0	7.0	2.0		
	6100	KISV			0827.4	0829.0		7.0			
	6100	KISV	45	C	0827.4	0833.9	11.0	13.0			
	9100	GORK	1	S	0828.0	0828.9	2.8	13.0			
	6100	KISV	2	S/F	0853.1	0853.4	.5	7.0			
	650	GORK	22	GRF	0922.4	0926.3	15.3	3.0			
	950	GORK	23	GRF	0922.4	0930.0	9.2	1.0			
	204	IZMI	5	S	0925.0	0929.5	7.0	33.0	15.0		
	6100	KISV	2	S/F	0927.4	0929.2	2.5	12.0			
	2950	GORK	4	S/F	0927.6	0929.4	3.1	26.0			
	2695	LEAR	8	S	0927.8	0929.3	1.8	22.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	0928.1	0929.3	1.4	13.0			QL=6 ST=2 TYP=3
	430	KRAK	8	S	0928.3	0928.4	.2	6.0			
	9100	GORK	1	S	0928.5	0929.2	.9	9.0			
	950	GORK	1	S	0929.0	0929.1	.5	6.0			
	810	KRAK	8	S	0929.3	0929.5	.3	7.0			
	2950	GORK	1	S	0949.0	0950.5	3.4	7.8			
	6100	KISV	2	S/F	0949.0	0952.5	4.0	3.0			

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NOVEMBER 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean	Int	Remarks
29	6100	KISV	21	GRF	1014.5	1021.1	50.0	15.0			
	1470	POTS	40	F	1017.0	1020.3	5.0	40.0			
	950	GORK	23	GRF	1017.6		8.7				
	650	GORK	46	C	1017.7	1019.3	3.0	45.0			
	650	GORK			1017.7	1019.8		41.0			
	536	ONDR	46	C	1018.0	1019.0	4.0	29.0			
	127	TORN	45	C	1018.2	1023.2	6.5	90.0	10.0		
	113	POTS	42	SER	1018.3	1023.1	6.8	200.0	1.0		III
	950	GORK	3	S	1019.7	1020.6	.9U	7.0			
	2950	GORK	2	S/F	1020.7	1021.1	2.6	7.7			
	9100	GORK	1	S	1050.8	1051.0	1.1	16.0	8.0		
	9500	POTS	40	F	1125.0	1125.4	6.0	25.0			
	9400	HUAN	20	GRF	1150.2	1152.7	9.0	5.2	2.8		O
	9400	HUAN	1	S	1242.8	1244.0	2.8	7.9	3.0		L
	9400	HUAN	20	GRF	1401.1	1421.0	42.1	5.2	2.9		O
	2800	OTTA	4	S/F	1742.0	1744.2	7.0	30.0	8.0		
	9400	HUAN	2	S/F	1742.8	1744.3	4.2	7.9	3.0		O
	9400	HUAN	1	S	1913.6	1914.5	2.5	9.2	6.6		L
	2695	PENT	1	S	2106.0	2106.3	1.5	2.6	1.3		
	9400	HUAN	21	GRF	2134.0	2138.9	14.2	6.6	4.7		O
	9400	HUAN	4	S/F	2137.1	2137.6	1.3	63.1	19.5		R
	2695	PENT	4	S/F	2137.2	2137.7	2.0	48.0	13.0		
	3750	TYKW	5	S	2304.0	2310.0	14.0	5.0	2.0		
	9400	TYKW	21	GRF	2320.0	0025.0	135.0	10.0	5.0		
	2000	TYKW	21	GRF	2321.0	2335.0	160.0	9.0	5.0		
	3750	TYKW	21	GRF	2321.0	2335.0	165.0	11.0	6.0		
	9400	TYKW	45	C	2322.0	2323.4	4.0	34.0	8.0		
	3750	TYKW	45	C	2322.0	2323.4	4.0	29.0	10.0		
	100	HIRA	46	C	2322.6	2323.4	2.0	710.0	120.0		O
	200	HIRA	46	C	2322.6	2323.5	2.0	1400.0	85.0		O
	15400	LEAR	8	S	2322.6	2324.3	2.0	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	2322.8	2323.3	2.0	41.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2322.8	2323.5	2.0	44.0			QL=5 ST=3 TYP=3
	2000	TYKW	45	C	2323.0	2323.6	2.5	10.0	4.0		
	1000	TYKW	45	C	2323.0	2323.6	17.0	34.0	4.0		
	1000	TYKW			2323.0	2335.2		14.0			
	500	HIRA	45	C	2323.0	2323.7	1.5	420.0	90.0		SR
	4995	MANI	3	S	2323.0	2323.7	2.4	32.1	10.7		
	1415	MANI	3	S	2323.0	2324.2	1.9	15.8	5.3		
	245	LEAR	47	GB	2323.1	2323.3	.5	290.0			QL=6 ST=2 TYP=5
	2695	LEAR	8	S	2323.1	2323.8	1.2	20.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	2323.3	2324.0	1.3	90.0			QL=6 ST=2 TYP=5
	1415	LEAR	8	S	2323.3	2324.0	1.0	21.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	2323.3	2324.3	1.3	110.0			QL=6 ST=2 TYP=5
	208	VORO	5	S	2324.0	2325.0	2.0	200.0D			
	9400	TYKW	45	C	2330.5	2331.2	2.0	8.0	2.0		
	100	HIRA	41	F	2331.2	2334.5	8.7	1300.0			WL
	200	HIRA	46	C	2332.0	2332.5	1.0	410.0	52.0		WR
	208	VORO	4	S/F	2332.0	2333.0	1.0	200.0D			
	1000	TYKW	45	C	2355.0	0046.0	105.0	5.0	2.5		
	500	HIRA	22	GRF	2356.0	0044.0	91.0	10.0	6.0		SR
30	200	GORK	44	NS	0600.0E		352.0D		20.0		
	100	GORK	43	NS	0630.0		270.0		5.0		
	127	TORN	43	NS	0736.0	0746.2	40.4	1200.0	16.0		V1
	260	ONDR	44	NS	0800.0E		366.0D				
	245	SGMR	43	NS	1217.0	1459.5	510.0D	540.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2128.0E	0447.0	590.0D	25.0	5.0		MR
	245	LEAR	43	NS	2149.0	0728.1	767.0D	42.0			QL=6 ST=2 TYP=1
	3750	TYKW	21	GRF	0012.0	0019.0	55.0	3.0	1.5		
	3750	TYKW	5	S	0029.0	0029.6	8.0	2.0	1.0		
	9400	TYKW	45	C	0045.0	0045.6	8.0	15.0	5.0		
	9400	TYKW			0045.0	0046.9		15.0			
	2000	TYKW	5	S	0045.3	0045.6	.7	1.5	.5		
	3750	TYKW	5	S	0046.0	0047.6	7.0	3.0	1.0		
	100	HIRA	8	S	0103.0	0103.2	.6	4100.0			WL
	3750	TYKW	45	C	0224.0	0239.9	20.0	28.0	1.5		
	9400	TYKW	5	S	0234.0	0236.0	10.0	3.0	1.5		
	8800	LEAR	47	GB	0258.8	0259.6	2.2	60.0			QL=5 ST=3 TYP=5
	9400	TYKW	45	C	0259.0	0259.6	1.0	50.0	11.0		
	3750	TYKW	45	C	0259.0	0259.7	1.0D	8.0	3.0D		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean	Int	Remarks
30	4995	LEAR	8	S	0259.0	0259.6	2.0	26.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0259.3	0259.6	.5	13.0			QL=6 ST=2 TYP=3
	9400	TYKW	30	PBI	0300.0		20.0	5.0	2.0		
	3750	TYKW	5	S	0311.0	0311.2	2.0	8.0	2.5		
	9400	TYKW	5	S	0311.0	0311.3	2.0	3.0	1.0		
	2000	TYKW	5	S	0311.0	0311.1	1.0	2.0	.5		
	3750	TYKW	5	S	0329.0	0329.5	1.5	1.5	.5		
	3750	TYKW	5	S	0336.0	0337.2	3.0	2.0	.5		
	9400	TYKW	5	S	0336.7	0337.4	2.0	3.0	1.0		
	3750	TYKW	5	S	0410.0	0411.7	4.0	55.0	8.0		
	4995	LEAR	47	GB	0411.3	0411.6	.8	62.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0411.3	0411.6	.8	70.0			QL=5 ST=2 TYP=5
	15400	LEAR	8	S	0411.3	0411.6	.7	19.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0411.3	0411.6	.8	9.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0411.3	0411.6	1.2	56.0	14.0		
	9400	TYKW	29	PBI	0412.5		10.0	3.0	1.5		
	3750	TYKW	29	PBI	0414.0		10.0	4.0	1.5		
	6100	KISV	1	S	0626.5	0627.2	1.0	3.0			
	2950	GORK	20	GRF	0724.3	0738.4	44.5	8.9			
	3100	CRIM	20	GRF	0733.0	0737.0	6.0	6.0	2.0		
	100	GORK	41	F	0742.7	0746.1	8.3	70.0D			
	100	GORK			0742.7	0750.0		70.0			
	113	POTS	42	SER	0743.7	0746.1	7.4	2500.0	50.0	III	
	2950	GORK	21	GRF	0822.8	0842.0	50.0	16.5			
	9100	GORK	21	GRF	0836.6	0859.0	86.0	13.0			
	3100	CRIM	3	S	0839.0	0839.5	2.0	120.0	40.0		
	4995	ATHN	47	GB	0839.3	0840.1	3.2	169.0			QL=2 ST=2 TYP=5
	8800	ATHN	4	S/F	0839.5	0840.3	2.1	47.0			QL=2 ST=2 TYP=3
	9500	POTS	3	S	0839.5	0840.7	2.5	25.0			
	6100	KISV	4	S/F	0839.5	0840.8	5.0	80.0			
	2695	ATHN	47	GB	0839.6	0840.1	3.7	119.0			QL=2 ST=2 TYP=5
	2650	DWIN	1	S	0840.0	0840.0	1.0	110.0	50.0		
	2950	GORK	3	S	0840.0	0840.5	1.8	155.0			
	3100	BERN	3	S	0840.0	0840.6	15.0	179.0			
	5200	BERN	3	S	0840.0	0840.6	15.0	153.0			
	8400	BERN	3	S	0840.0	0840.6	15.0	76.0			
	3000	POTS	3	S	0840.0	0840.7	3.5	118.0			
	204	IZMI	5	S	0840.1	0840.5	5.0	180.0	100.0		
	2695	LEAR	47	GB	0840.1	0840.6	4.2	119.0			QL=6 ST=2 TYP=5
	9100	GORK	3	S	0840.1	0840.6	1.2	46.0			
	15400	LEAR	8	S	0840.1	0840.6	1.2	18.0			QL=6 ST=2 TYP=3
	4995	LEAR	47	GB	0840.1	0840.6	2.7	130.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0840.3	0840.6	2.2	51.0			QL=6 ST=2 TYP=5
	3100	CRIM	29	PBI	0841.0	0841.0	8.0	6.0	2.0		
	3100	CRIM	20	GRF	0853.5	0857.0	10.0	7.0	2.0		
	6100	KISV			0854.5	0857.0		7.0			
	6100	KISV	46	C	0854.5	0858.1	12.0	9.0			
	6100	KISV			0854.5	0859.4		9.0			
	4995	LEAR	4	S/F	0856.1	0858.1	4.9	11.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0856.1	0858.1	4.9	11.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0856.1	0858.3	4.4	9.0			QL=6 ST=2 TYP=3
	6100	KISV	1	S	0928.2	0928.7	3.5D	3.0			
	113	POTS	42	SER	1014.5	1015.1	29.0	700.0	10.0	III	
	33	UPIC	45	C	1033.0	1033.2	.9				
	33	UPIC	4	S/F	1033.1	1033.5					
	113	POTS	4	S/F	1151.7	1151.8	.5	200.0	30.0		
	9400	HUAN	1	S	1217.6	1218.5	1.9	8.1	2.7		0
	810	KRAK	8	S	1306.0	1306.0	.1	12.0			
	410	SGMR	47	GB	1447.5	1447.6	1.1	73.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1447.6	1447.8	3.2	130.0			QL=6 ST=2 TYP=5
	2800	OTTA	22	GRF	1515.0	1545.0	75.0	6.8	2.6		
	2800	OTTA	20	GRF	1735.0	1800.0	100.0	3.4	2.8		
	9400	HUAN	21	GRF	1736.1	1743.7	32.0	9.5	3.8		0
	200	HIRA	46	C	2237.7	2238.3	2.0	74.0			MR
	200	HIRA	46	C	2321.5	2322.5	1.6	25.0	11.0		WR
	9400	TYKW	5	S	2323.0	2324.2	3.0	7.0	2.0		
	3750	TYKW	5	S	2323.0	2324.3	3.0	9.0	5.0		
	8800	LEAR	8	S	2323.1	2324.1	1.7	11.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	2323.1	2324.1	4.7	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	30	PBI	2326.0		55.0	5.0	2.5		
	9400	TYKW	30	PBI	2326.0		55.0	3.0	1.5		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10^{-22} W/m^2 Hz)	Flux Density Mean (10^{-22} W/m^2 Hz)	Int	Remarks
30	3750	TYKW	5	S	2331.0	2332.5	5.0	3.0	1.0		
	200	HIRA	46	C	2348.8	2349.5	1.4	84.0	27.0		MR
	3750	TYKW	5	S	2350.0	2352.6	4.0	12.0	3.0		
	9400	TYKW	5	S	2351.0	2352.5	3.0	29.0	8.0		
	4995	LEAR	4	S/F	2351.6	2352.5	3.4	32.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	2351.6	2352.5	3.4	41.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	2352.0	2352.1	.1	11.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2352.0	2352.1	.1	8.0			QL=6 ST=2 TYP=3

Reports are received routinely from the following observatories:

ATHN = Athens
BERN = Berne
BORD = Bordeaux
CRIM = Crimea
DWIN = Dwingeloo
GORK = Gorky
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = IZMIRAN
KISV = Kislovodsk
KRAK = Krakow
LEAR = Learmonth
MANI = Manila
NAGO = Nagoya
NOBE = Nobeyama
ONDR = Ondrejov
OTTA = Ottawa
PALE = Palehua
PEKG = Peking
PENT = Penticton
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagamore Hill
TORN = Torun
TYKW = Toyokawa
TRST = Trieste
UPIC = Upice
VORO = Voroshilov

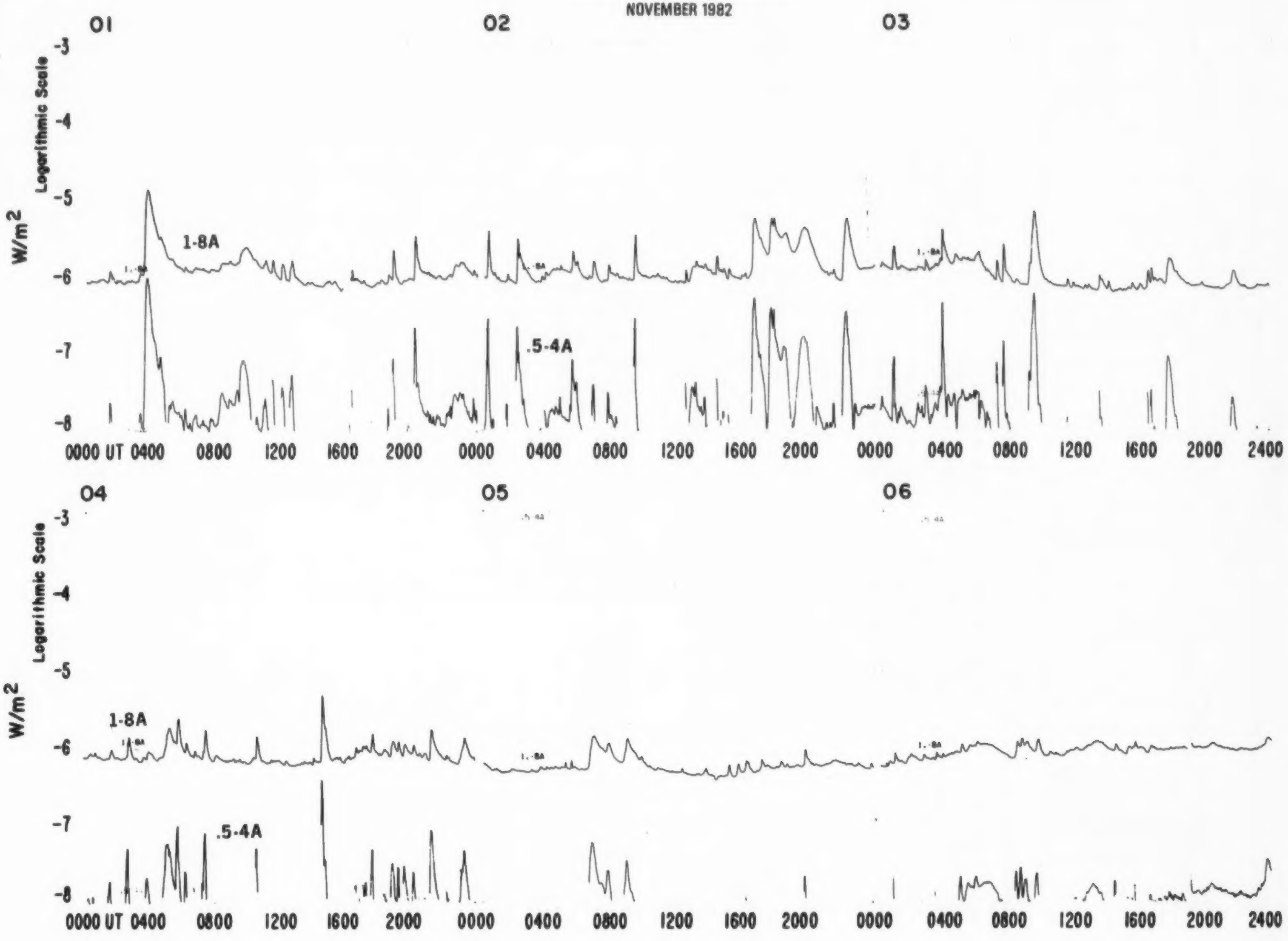
Explanation of Type Code:

1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
33 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise Storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

1A Simple 1A
3A Simple 2A
21A Simple 3A GRF
2A Simple 1AF
4A Simple 2AF
240 Rise only
240F Rise only F
24P Post Rise
24PF Post Rise F
16A Fall A
260 Fall Only
26F Fall F
27F Rise and Fall F
27AF Rise and Fall AF
31A Post Burst Decrease A
32A Absorption A
46F Complex F

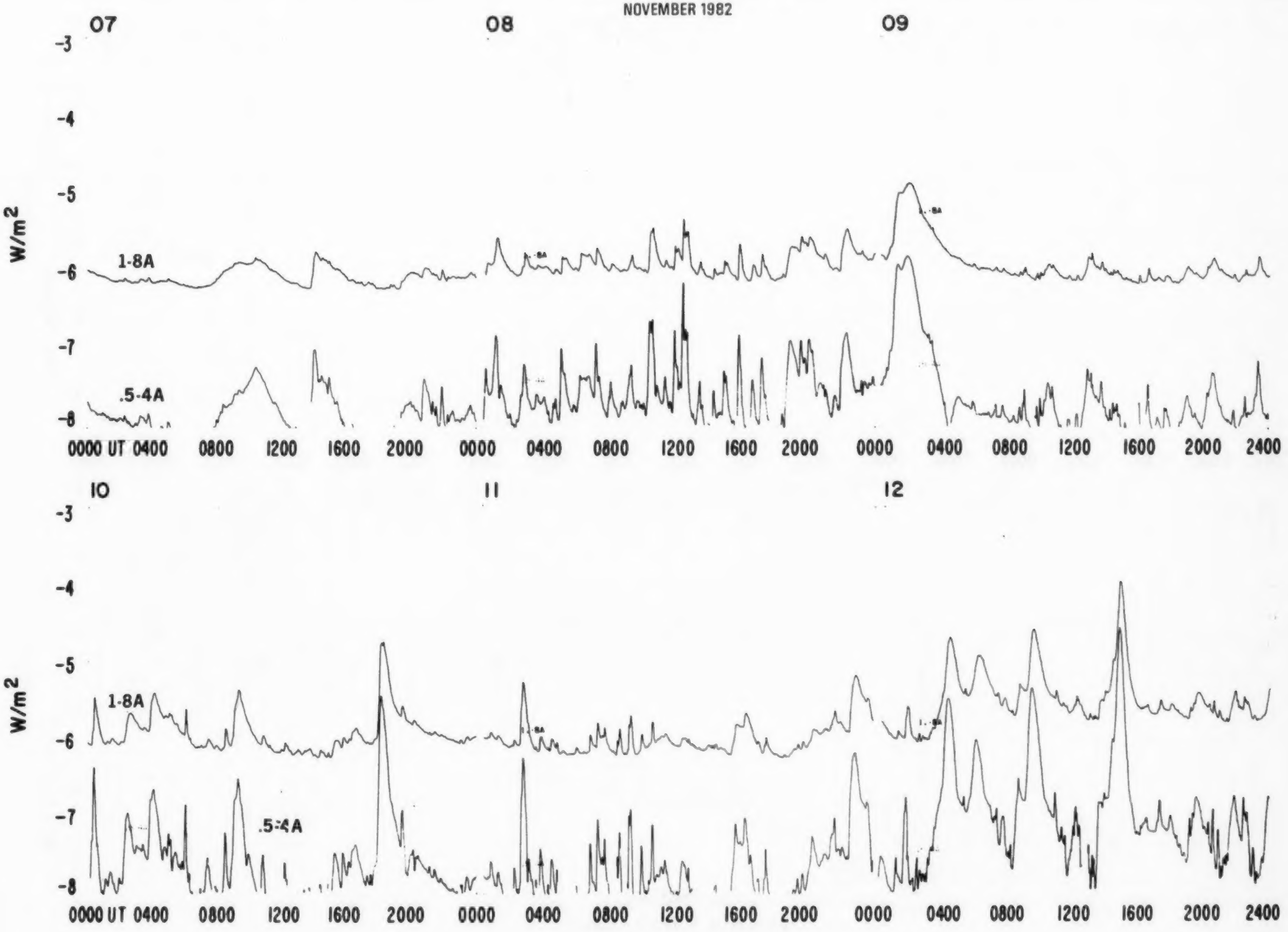
SMS - GOES X-RAYS

NOVEMBER 1982



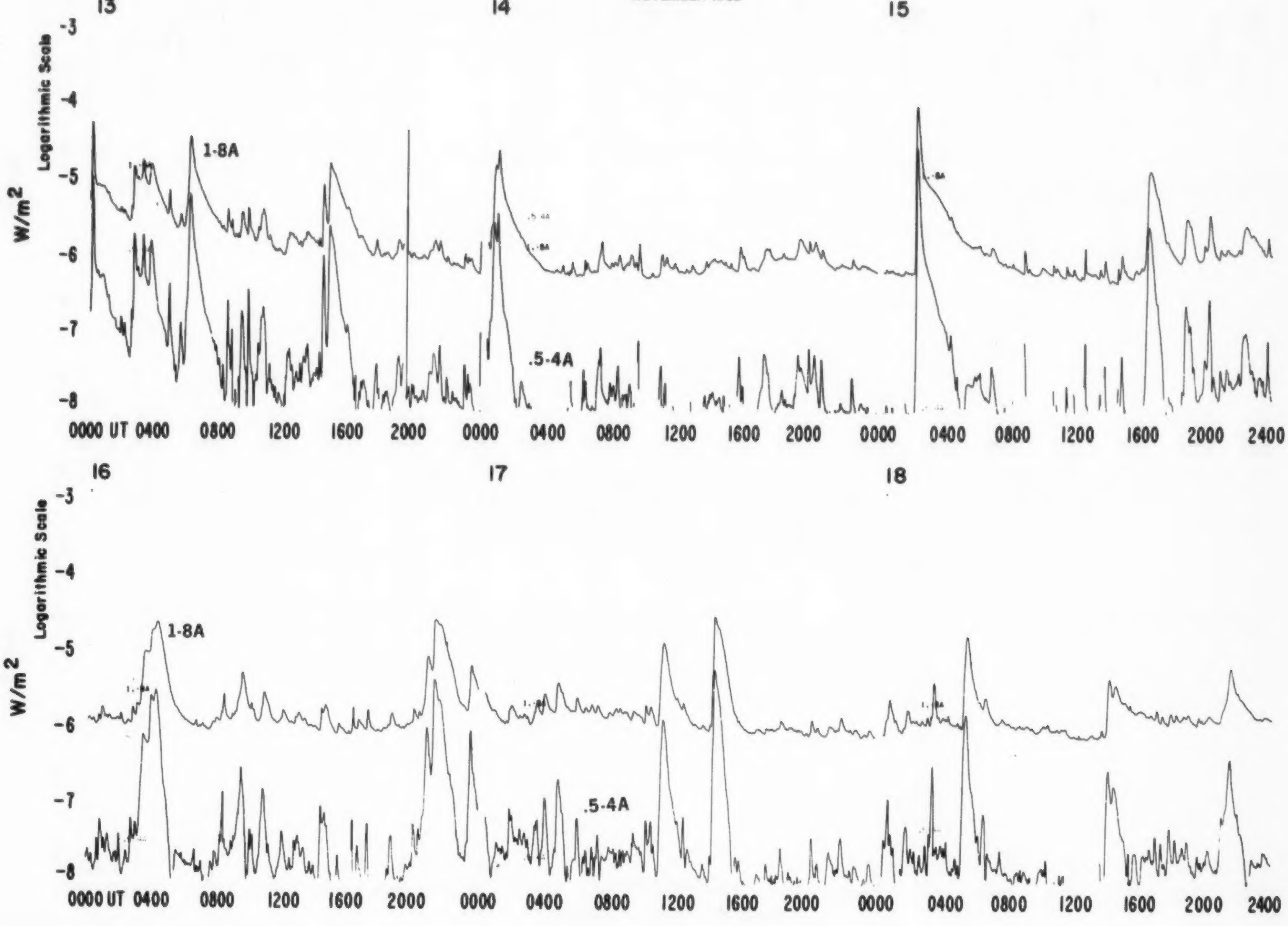
SMS - GOES X-RAYS

NOVEMBER 1982



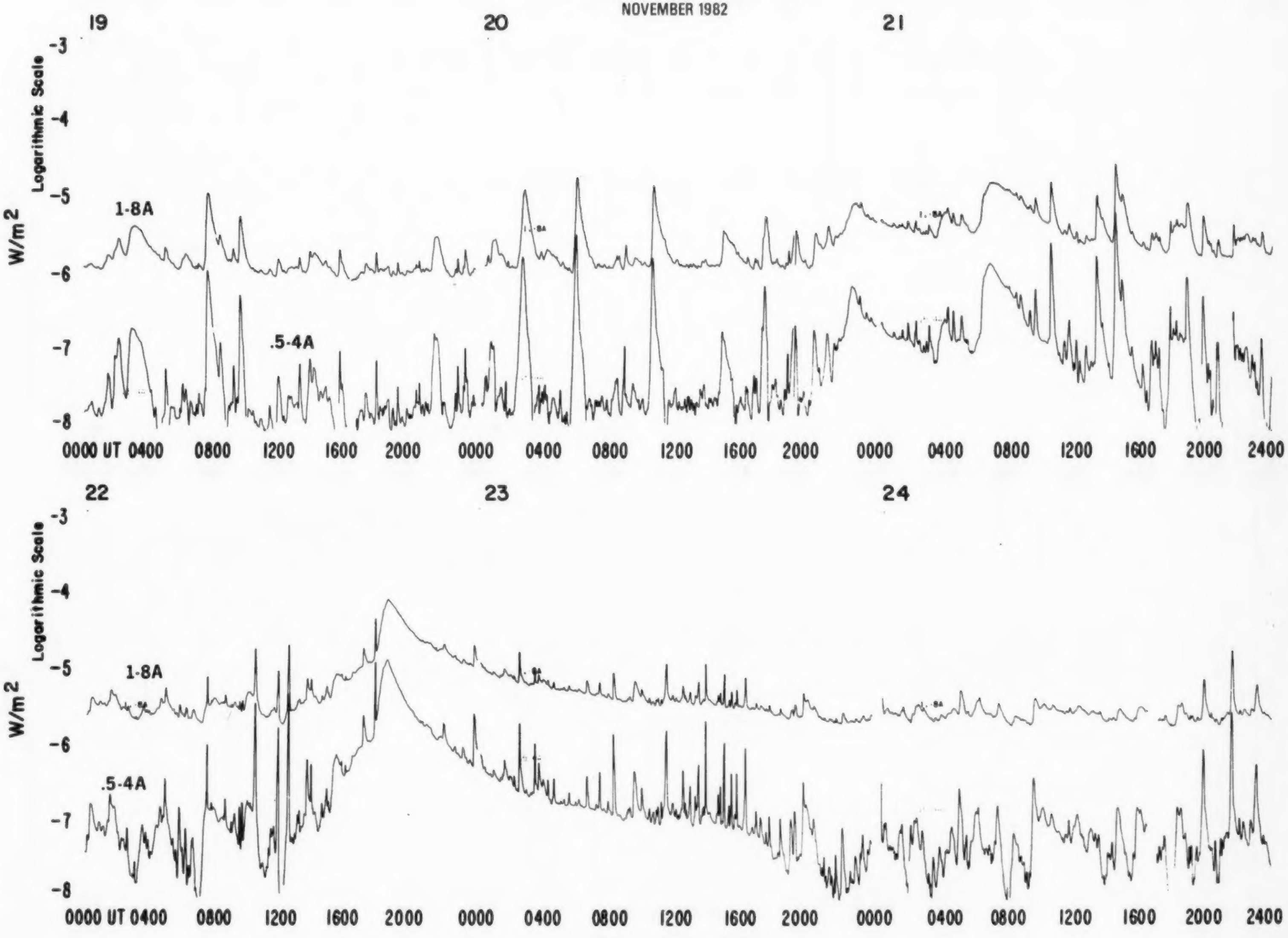
SMS - GOES X-RAYS

NOVEMBER 1982



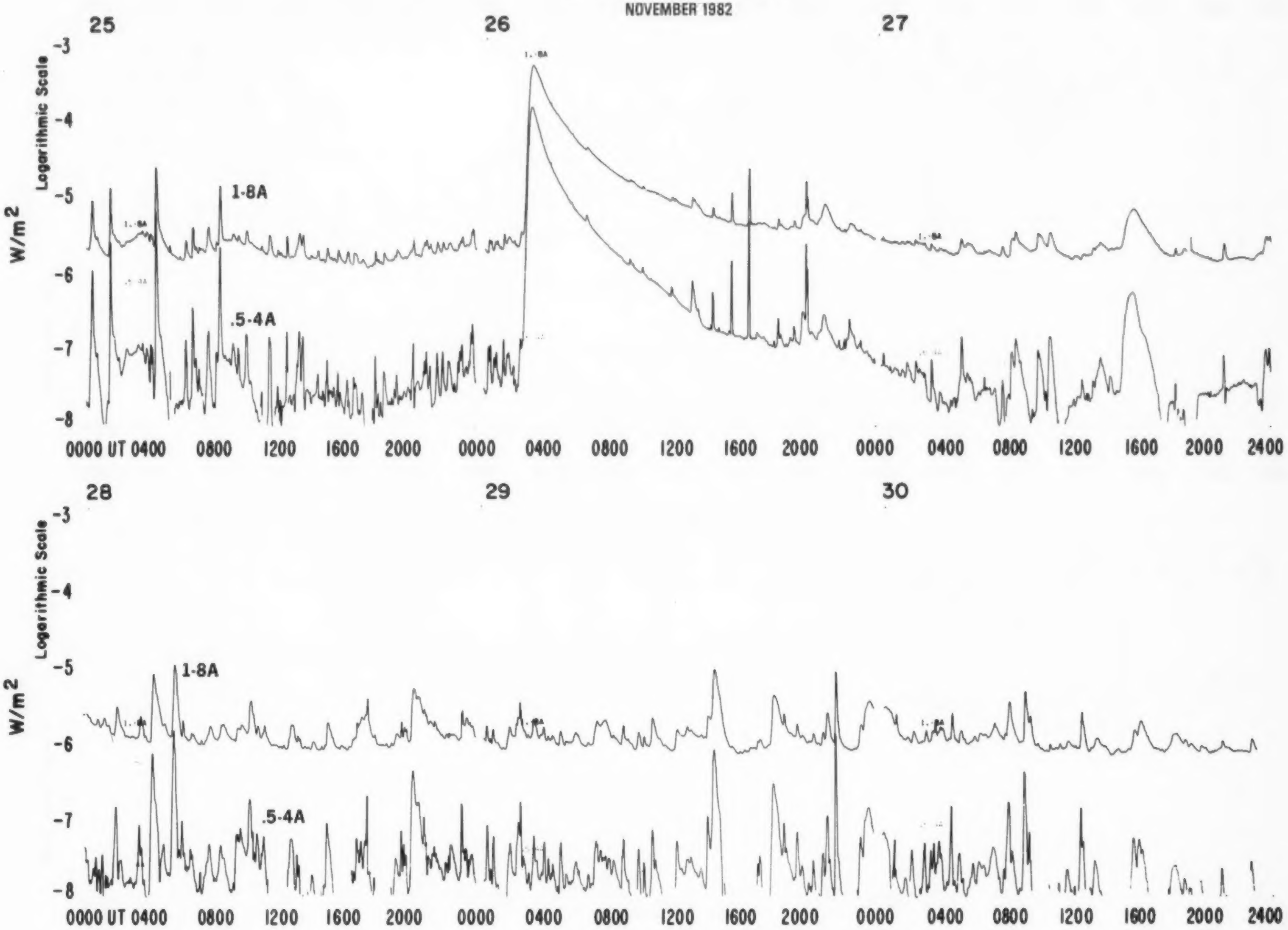
SMS - GOES X-RAYS

NOVEMBER 1982



SMS - GOES X-RAYS

NOVEMBER 1982



MASS EJECTIONS FROM THE SUN

November 1982

Sta	Day	Observed UT Start	Max	End	Location RA°	R/R$_O$	Freq or Wavelength	Kind of Event
WEND	Nov 01	0923E		0940	260	1.0	H-alpha	S
WEND	Nov 02	1300E	1315	1329	262	1.0	H-alpha	S
CULG	Nov 09	0143.0		0155.0			Meter	Possible II
KHAR	Nov 09	0940E		1033D	102	1.00	H-alpha	S
KHAR	Nov 09	1128E		1155D	117	0.98	H-alpha	S
LEAR	Nov 12	┌0536.3		0542.1			Meter	II
LEAR	Nov 12	[0536.3		0957.0			Meter	IV
CULG	Nov 12	└0536.5		0554.0			Meter	Possible II
KAHR	Nov 12	0905E		0937D	118	0.59	H-alpha	S
KHAR	Nov 12	0948E		1040D	118	0.59	H-alpha	S
KHAR	Nov 12	1129E		1135D	111	0.68	H-alpha	S
CULG	Nov 13	┌0308.5		0318.0			Meter	Possible II
LEAR	Nov 13	└0312.0		0319.0			Meter	II
LEAR	Nov 13	0319.0		0845.0			Meter	IV
CULG	Nov 18	┌0500.5		0508.0			Meter	II Herringbone
LEAR	Nov 18	└0501.6		0503.5			Meter	II
CULG	Nov 18	0504.5		0506.0			Decimeter	IV
ABST	Nov 20	0521	0554	0738D	115	1.00	H-alpha	SP
WEIS	Nov 22	0806.1		0806.2			200-260 MHz	II U-shaped
HARV	Nov 22	┌1743.0		1915.0			Decimeter; meter	IV
PALE	Nov 22	└1757.5		1941.3			Meter	IV
CULG	Nov 24	0239.5		0246.5			Meter	II
CULG	Nov 26	┌0226.0		0333.5			Decimeter; meter	IV
LEAR	Nov 26	└0229.0		0350.0			Meter	IV
CULG	Nov 26	0234.0		0250.0			Meter	II
CULG	Nov 26	0319.0		0320.0			Decimeter; meter	Possible II
HARV	Nov 26	┌2031.0		2038.0			Meter; dekameter	II
CULG	Nov 26	└2031.5		2038.5			Meter	II Herringbone
CULG	Nov 26	┌2040.0		2059.5			Meter	II
HARV	Nov 26	└2040.0		2050.0			Meter; dekameter	II
BLEN	Nov 27	1218.2		1219.1			Meter	II
CULG	Nov 29	2331.5		2337.5			Meter	Possible II
ABST	Nov 30	0717E	0747	0810D	079	1.00	H-alpha	SP

QUALIFIERS ON START, MAX AND END TIMES
D = event ended after tabulated time
E = event began before the tabulated time
U = uncertain time

TYPE OF EVENT
A = eruptive active region prominence
CB = coronal cloud bubble
D = coronal depletions
E = coronal enhancement
EL = coronal expanding loop
II = Type II radio burst
IVm = moving Type IV radio burst
Q = eruptive quiescent prominence
R = coronal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association
* = movement may be caused by ionospheric refraction

REPORTING STATIONS
ABST = Abastumani
BIGB = Big Bear
BLEN = Bleien
CULG = Culgoora
DWIN = Dwingeloo
GEOR = Georgiana
HALE = Haleakala
HARV = Harvard (Fort Davis)
KHAR = Kharkov
LEAR = Learmonth
LVOV = Lvov
MANI = Manila
MITK = Mitaka
PALE = Palehua
SGMR = Sagamore Hill
TELV = Tel Aviv
VORO = Voroshilov
WEIS = Weissenau
WEND = Wendelstein
UDAI = Udaipur

OCTOBER 1980 DATA

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H - ALPHA S O L A R F L A R E S

OCTOBER 1980

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88219	01	0021+2	0025+3 0040+2	0048	N13	E34	.560	17174	3.6	27	-B						DJK
CULG	01	0021	0027	0050	N13	E34	.560	17174	3.6	29	1B		C	0027	240	2.7	
LEAR	01	0022	0040	0050	N13	E34	.560	17174	3.6	28	-B	3	C		42		
VORO	01	0023	0025	0044	N14	E35	.576	17174	3.6	21	-B		C	0025	108	1.3	DJK
BIGB	01	0023	0028	0045	N14	E33	.548	17174	3.5	22	-N	3	C	0028	40	.5	
PEKG	01	0034	0040	0051	N13	E33	.546	17174	3.5	17	-B		C	0040	63	.8	D
MANI	01	0039E	0042U	0042D	N15	E35	.578	17174	3.7	3D	-F	1	V		20	.2	
220 CULG	01	0058	0101	0114	N17	W19	.362	17169	29.6	16	-F		C	0101	70	.7	
221 CULG	01	0121	0126	0138	S27	E53	.878		5.0	17	-N		C	0126	80	1.6	G
GRP88222	01	0134+3	0139+2	0151	N13	E34	.560	17174	3.6	17	-N				80	1.0	EJ
PURP	01	0100	0141	0147	N16	E34	.567	17174	3.6	47	1N		C				
CULG	01	0134	0140	0151	N13	E34	.560	17174	3.6	17	-N		C	0140	90	1.0	
LEAR	01	0136	0139	0154	N12	E34	.558	17174	3.6	18	-N	3	C		75		
PEKG	01	0137	0139	0141D	N13	E33	.546	17174	3.5	4D	-N		C	0139	55	.7	E
VORO	01	0137	0140	0150	N14	E35	.576	17174	3.7	13	-F		C	0140	90	11.1	EJ
PURP	01	0138	0141	0147D	N12	E34	.558	17174	3.6	9D	-N		C				F
GRP88223	01	0157	0202+0	0209	N17	E32	.543	17174	3.5	12	-F				35	.4	D
LEAR	01	0157	0202	0212	N17	E32	.543	17174	3.5	15	-N	3	C		33		
PEKG	01	0201E	0202	0205	N18	E32	.547	17174	3.5	4D	-F		C	0202	42	.5	D
GRP88224	01	0249	0253+0	0312	N22	E21	.429	17173	2.7	23	1N						
CULG	01	0249	0253	0321	N23	E21	.437	17173	2.7	32	1N		C	0253	200	2.3	
PURP	01	0253E	0253	0302	N21	E22	.433	17173	2.8	9D	1N		C				
225 CULG	01	0305	0309	0328	N08	W21	.356	17169	29.6	23	-F		C	0309	110	1.2	
GRP88226	01	0332+4	0335+2	0345	N23	E19	.414	17173	2.6	13	-N						
PEKG	01	0332	0335	0345	N23	E19	.414	17173	2.6	13	-B		P	0335	84	.9	E
CULG	01	0332	0337	0359	N24	E21	.447	17173	2.7	27	-N		C	0337	130	1.5	F
LEAR	01	0336	0337	0342	N22	E18	.393	17173	2.5	6	-F	3	C		39		
GRP88227	01	0408+4	0415+1	0422	N13	E32	.532	17174	3.6	14	-N				60	.7	E
CULG	01	0408	0415	0425	N13	E32	.532	17174	3.6	17	-F		C	0415	80	.9	
LEAR	01	0412	0416	0422	N13	E32	.532	17174	3.6	10	-N	3	C		45		
PEKG	01	0415E	0416	0420	N13	E32	.532	17174	3.6	5D	-N		C	0416	55	.7	E
GRP88228	01	0536+3	0540+1	0600	N12	E30	.501	17174	3.5	24	-F						
PEKG	01	0536	0541	0600	N13	E30	.503	17174	3.5	24	-F		P	0541	34	.4	E
PURP	01	0539	0540	0541D	N12	E31	.515	17174	3.6	2D	-F		V				D
GRP88229	01	0638+2	0641+2	0650	N13	E28	.474	17174	3.4	12	-F				30	.3	E
HTPR	01	0638	0641	0646	N12	E28	.471	17174	3.4	8	-F		C	0641	20	.2	
PEKG	01	0640	0643	0653	N14	E29	.491	17174	3.5	13	-N		C	0643	42	.5	E
230 PEKG	01	0700	0702	0706	N13	E28	.474	17174	3.4	6	-F		C	0702	34	.4	E
GRP88231	01	0735>9	0753+1	0756	N13	E29	.488	17174	3.5	21	-N				40	.5	D
PEKG	01	0735	0754	0756	N14	E29	.491	17174	3.5	21	-B		P	0754	34	.4	DT
HTPR	01	0752	0753	0756D	N12	E28	.471	17174	3.4	4D	-N		C	0753	30	.3	
PURP	01	0753E	0753	0753D	N12	E30	.501	17174	3.6		-F		P				D
YUNN	01	0755E	0755	0755D	N14	E30	.505	17174	3.6		-N		P		64	.8	
232 PURP	01	0834E	0834	0837	N12	E30	.501	17174	3.6	3D	?F		P				
			IMP.1 NO : HTPR														
GRP88233	01	1024+6	1028 1035	1040	N13	E26	.444	17174	3.4	16	-N						E
HTPR	01	1024	1028	1040	N12	E26	.441	17174	3.4	16	-B		C	1028	30	.3	E
CATA	01	1030	,035	1040	N14	E27	.462	17174	3.5	10	-F		C	1035	56	.6	
GRP88234	01	1205+7	1213+6	1244	N12	E66	.908	17177	6.5	39	1N						E
BERN	01	1205	1219	1234	N12	E66	.908	17177	6.5	29	1F				350		
HTPR	01	1211		1230D	N10	E62	.878	17177	6.2	19D	1N		C	1217	130	2.6	E
RAMY	01	1212	1213	1253	N16	E66	.907	17177	6.5	41	-N	3	C		28		
235 HTPR	01	1234E		1250	N12	E28	.471	17174	3.6	16D	-F		C	1234	30	.3	

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GRP88236	01	1419+2	1442+3 1507	1515	N13	E26	.444	17174	3.5	56	-F						E
HTPR	01	1419	1442	1510	N12	E27	.456	17174	3.6	51	-F		C	1442	50	.5	E
KANZ	01	1421	1445	1500	N16	E29	.498	17174	3.8	39	-F	2					
HTPR	01	1442	1444	1500	N12	E23	.395	17174	3.3	18	-N		C	1444	20	.2	
KANZ	01	1507	1507	1519	N14	E24	.418	17174	3.4	12	-F	2					
237 HTPR	01	1616	1617	1620	N12	E22	.380	17174	3.3	4	-F		C	1617	40	.4	
238 HOLL	01	1741	1746	1800	N23	E14	.360	17173	2.8	19	-F	3	C		56		
GRP88239	01	1749+2	1750+2	1800	N17	E65	.900	17177	6.6	11	-F						
PALE	01	1749	1750	1805	N19	E60	.862	17177	6.2	16	-F	3	C		39		
HOLL	01	1751	1752	1755	N16	E71	.939	17177	7.1	4	-F	3	C		14		
240 HOLL	01	1758	1802	1817	N18	E28	.493	17174	3.8	19	-F	3	C		24		
241 HOLL	01	1924	1926	1945	N14	E22	.388	17174	3.5	21	-F	3	C		39		
242 HOLL	01	1950	2004	2030	N13	E23	.399	17174	3.6	40	-N	3	C		79		
GRP88243	01	2058>9	2105 2132	2137	N14	E22	.388	17174	3.5	39	-F						
HOLL	01	2058	2105	2129	N14	E22	.388	17174	3.5	31	-F	3	C		33		
CULG	01	2126	2132	2144	N14	E22	.388	17174	3.5	18	-N		C	2132	80	.9	
GRP88244	01	2152+4	2201+2 2219	2221	N13	E23	.399	17174	3.6	29	-F				35	.4	
CULG	01	2152	2203	2217	N14	E22	.388	17174	3.6	25	-F		C	2203	40	.4	
HOLL	01	2156	2201	2214	N14	E21	.373	17174	3.5	18	-F	3	C		26		
CULG	01	2210	2219	2228	N12	E29	.486	17174	4.1	18	-F		C	2219	30	.3	
GRP88245	01	2204+3	2208+1	2217	N15	E59	.851	17177	6.3	13	-F				25	.5	
CULG	01	2204	2208	2216	N14	E60	.860	17177	6.4	12	-F		C	2208	30	.6	
HOLL	01	2207	2209	2217	N16	E59	.852	17177	6.3	10	-F	3	C		18		
246 CULG	01	2252	2256	2306	N13	E26	.444	17174	3.9	14	-N		C	2256	50	.6	
247 CULG	01	2318	2326	2339	N14	E60	.860	17177	6.5	21	-N		C	2326	40	.8	
GRP88248	02	0025+5	0035+2 0045	0050	S24	E90	1.001	17179	8.8	25	-N				45		D
VORO	02	0025	0035	0050	S24	E90	1.001	17179	8.8	25	-N		C	0035	45		D
BIGB	02	0026	0037	0045D	S23	E90	1.001	17179	8.8	19D	-N	3	P	0037	40		
LEAR	02	0030	0045	0050	S25	E87	1.000	17179	8.5	20	-F	2	C				
249 PEKG	02	0145	0158	0216	S23	E86	1.000	17179	8.5	31	-N		C	0158	46	.5	AE
250 PURP	02	0210E	0210	0215D	N13	E61	.869	17177	6.7	5D	?F		P				
			IMP.1 NO : LEAR VORO MITK PEKG														
GRP88251	02	0311+2	0314+0	0326	N14	E18	.328	17174	3.5	15	-N				50	.5	DJ
LEAR	02	0311	0314	0328	N12	E18	.318	17174	3.5	17	-B	3	C		114		
MANI	02	0312	0314	0322D	N14	E17	.313	17174	3.4	10D	-F	2	P		50	.5	
VORO	02	0312	0314	0323	N15	E18	.334	17174	3.5	11	-F		C	0314	36	.4	DJ
PURP	02	0313	0314	0315D	N14	E18	.328	17174	3.5	2D	1N		P				
	02	0416	0418	NO FLARE PATROL													
252 LEAR	02	0437	0438	0446	N16	E55	.815	17177	6.3	9	-N	3	C		37		
GRP88253	02	0543+2	0546+5 0559+0	0606	N14	E20	.358	17174	3.7	23	1N				200	2.2	F
LEAR	02	0530	0549	0606	N14	E21	.373	17174	3.8	36	1N	3	C		273		
CULG	02	0543	0546	0605	N14	E22	.388	17174	3.9	22	-N		C	0546	140	1.5	
PEKG	02	0543E	0549	0600	N14	E22	.388	17174	3.9	17D	1B		P	0549	189	2.1	E
PURP	02	0545	0551	0602	N15	E22	.393	17174	3.9	17	1B		C				F
PEKG	02	0555	0559	0605	N13	E16	.292	17174	3.4	10	-N		P	0559	105	1.1	F
PURP	02	0559E	0559	0626	N13	E16	.292	17174	3.4	27D	1N		C				

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88254	02	0743+3	0748+2	0821	N15	E18	.334	17174	3.7	38	-N				100	1.1	EJ
ABST	02	0743	0748	0825	N16	E17	.327	17174	3.6	42	-N		C	0748	131	1.4	EJ
LEAR	02	0745	0749	0822	N16	E18	.341	17174	3.7	37	-F	3	C		130		
HTPR	02	0745	0749	0820	N15	E18	.334	17174	3.7	35	-B		C	0749	70	.7	E
MANI	02	0746	0750	0800D	N15	E18	.334	17174	3.7	14D	-F	2	P		60	.6	
HTPR	02	0748	0749	0755	N14	E21	.373	17174	3.9	7	-B		C	0749	30	.3	
PURP	02	0752E	0752	0817	N15	E20	.363	17174	3.8	25D	1N		P				
255 ABST	02	0936E	0938	0944D	S26	E90	1.001	17179	9.1	8D	-N		P	0938	87		DJ
GRP88256	02	1012+3	1014+1	1020	N13	E15	.277	17174	3.5	8	-N				60	.6	
HTPR	02	1012	1014	1020	N13	E15	.277	17174	3.5	8	-B		C	1014	40	.4	
CATA	02	1015	1015	1020	N14	E16	.298	17174	3.6	5	-F		C	1015	84	.9	
257 HTPR	02	1145	1148	1156	N13	E12	.232	17174	3.4	11	-N		C	1148	20	.2	
258 CATA	02	1220	1220	1230	N13	E15	.277	17174	3.6	10	-F		C	1220	28	.3	
259 HTPR	02	1308	1316	1325	N14	E50	.762	17177	6.3	17	-F		C	1316	10	.2	
GRP88260	02	1703	1705+3	1737	N26	E02	.332	17172	2.9	34	-N				70	.8	
BIGB	02	1703	1708	1750	N26	E02	.332	17172	2.9	47	-B	2	C	1708	60	.6	
PALE	02	1705E	1705U	1724	N25	E03	.318	17172	2.9	19D	-N	3	C		39		
PALE	02	1705E	1705U	1716	N27	E00	.347	17172	2.7	11D	-F	3	C		50		
261 PALE	02	1800	1800	1808	N16	E13	.272	17174	3.7	8	-F	3	C		23		
GRP88262	02	2124+3	2128 2137	2207	S19	W37	.702	17167	30.1	43	-N						
CULG	02	2124	2137	2211	S18	W39	.716	17167	30.0	47	1N		C	2137	190	2.5	
HOLL	02	2127	2128	2203	S21	W36	.706	17167	30.2	36	-F	3	C		30		
GRP88263	02	2154+5	2159+1	2209	N13	E07	.162	17174	3.4	15	-B				180	1.8	
HOLL	02	2154	2200	2200D	N13	E07	.162	17174	3.4	6D	1B	3	C		231		
CULG	02	2156	2159	2213D	N13	E07	.162	17174	3.4	17D	1B		C	2159	220	2.2	
PALE	02	2159	2159	2206	N14	E08	.186	17174	3.5	7	-B	3	C		138		
BIGB	02	2159	2159	2209	N14	E08	.186	17174	3.5	10	-B	1	C	2159	80	.8	
GRP88264	02	2307+4	2313+2	2320D	N07	W47	.727	17169	29.4	13	-F				70	1.0	DJ
CULG	02	2307	2315	2356	N08	W47	.727	17169	29.4	49	-F		C	2315	80	1.2	
VORO	02	2311	2313	2320	N06	W47	.728	17169	29.4	9	-F		C	2313	72	1.0	DJ
GRP88265	02	2353+5	0000+1	0018	N13	E46	.716	17177	6.4	25	-F				100	1.5	DJ
CULG	02	2353	2400	0018	N14	E46	.716	17177	6.4	25	-N		C	2400	110	1.5	
LEAR	02	2357	2401	0023	N13	E45	.704	17177	6.4	26	-F	3	C		99		
VORO	02	2358	2401	0008	N12	E46	.715	17177	6.4	10	-F		C	2401	18	.3	DJ
266 CULG	03	0003	0006	0010	S13	W42	.721	17167	29.9	7	-F		C	0006	20	.3	
267 LEAR	03	0040	0043	0048	N13	E07	.163	17174	3.6	8	-F	3	C		27		
GRP88268	03	0049+1	0051+1	0104	N12	E12	.225	17174	3.9	15	-N				120	1.2	EJ
CULG	03	0049	0051	0109	N12	E12	.225	17174	3.9	20	-B		C	0051	150	1.5	J
VORO	03	0050	0052	0058	N13	E12	.232	17174	3.9	8	-N		C	0052	90	.9	E
269 CULG	03	0139	0140	0148	N14	E07	.175	17174	3.6	9	-F		C	0140	30	.3	
GRP88270	03	0501>9	0501 0528	0544	N13	E10	.203	17174	4.0	43	-N						DJK
ABST	03	0501E	0501	0554	N13	E09	.189	17174	3.9	53D	-N		P	0501	87	.9	DJK
ABST	03	0524	0528	0533	N13	E12	.232	17174	4.1	9	-N		C	0528	105	1.1	DJ

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GRP88271	03	0813+4	0821>9 0846+4	0900	N13	E07	.163	17174	3.9	47	-N				130	1.3	JK
KANZ	03	0813	0821	0853	N13	E07	.163	17174	3.9	40	-N	2					
HTPR	03	0814	0822	0920	N13	E07	.163	17174	3.9	66	-B		C	0822	180	1.8	EK
CATA	03	0815	0815	0815D	N13	E07	.163	17174	3.9		-F		P	0815	140	1.5	
LEAR	03	0817	0824	0851	N14	E05	.154	17174	3.7	34	-N	3	C		98		
ATHN	03	0820E	0840	0858D	N15	E08	.199	17174	3.9	38D	-N	4	S	0840	96	1.0	
MANI	03	0827E	0828	0838D	N13	E07	.163	17174	3.9	11D	-F	2	P		25	.3	F
BUCA	03	0830E	0832	0855D	N13	E08	.176	17174	4.0	25D	-N		C	0832	161	1.7	E
CATA	03	0845E	0850	0920D	N12	E08	.166	17174	4.0	35D	1F		P	0850	197	2.0	
ABST	03	0846E	0846	0853D	N13	E07	.163	17174	3.9	7D	-N		P	0846	105	1.1	DJ
HTPR	03	0909	0911	0917	N13	E02	.116	17174	3.5	8	-N		C	0911	30	.3	
272 HTPR	03	1004	1005	1007	N13	E02	.116	17174	3.6	3	-N		C	1005	20	.2	E
273 KANZ	03	1033	1041	1053	N13	E05	.140	17174	3.8	20	-F	2					
274 KANZ	03	1033	1037	1049	S08	W58	.863	17164	29.1	16	-F	2					
275 HTPR	03	1130	1150	1315	N13	E05	.140	17174	3.9	105	-F		C	1150	80	.8	E
276 KANZ	03	1232	1236	1244	S08	W61	.887	17164	28.9	12	-N	2					
GRP88277	03	1612+4	1615	1640	S16	W48	.795	17167	30.1	28	-F				50	.8	
HOLL	03	1612	1615	1640	S18	W49	.812	17167	30.0	28	-F	3	C		36		
WEND	03	1616		1627D	S15	W48	.791	17167	30.1	11D	-F		C	1621	62	1.0	
GRP88278	03	1623>9	1625 1637	1643	N12	E03	.107	17174	3.9	20	-F						
WEND	03	1623	1625	1639D	N13	E04	.130	17174	4.0	16D	-F		C	1625	68	.7	
HOLL	03	1637	1637	1643	N12	E03	.107	17174	3.9	6	-F	3	C		32		
279 HOLL	03	1703	1709	1715	N12	E01	.095	17174	3.8	12	-N	3	C		41		
GRP88280	03	1731>9	1751	1850	N13	E04	.130	17174	4.0	79	-N						
HOLL	03	1731	1751	1836	N12	E01	.095	17174	3.8	65	-N	3	C		102		
PALE	03	1834	1850U	1903D	N14	E08	.187	17174	4.4	29D	-N	2	C		33		
GRP88281	03	1818>9	1829 1838	1904	S19	W47	.798	17167	30.2	46	-N						
HOLL	03	1818	1858	1904	S20	W48	.811	17167	30.2	46	-N	3	C		33		
PALE	03	1828	1829	1846	S19	W47	.798	17167	30.2	18	-F	3	C		21		
BIGB	03	1832	1838	1922	S16	W47	.785	17167	30.2	50	-N	1	C	1838	70	1.1	
282 RAMY	03	1925	2023	2031	S20	W48	.811	17167	30.2	66	-F	3	C		22		
GRP88283	03	2001+5	2005 2032	2040	N12	00	.094	17174	3.8	39	-F						
HOLL	03	2001	2005	2042	N12	E02	.100	17174	4.0	41	-F	3	C		55		
RAMY	03	2006	2032	2037	N13	W01	.112	17174	3.8	31	-F	3	C		65		
284 HOLL	03	2112	2122	2158	S10	W63	.906	17164	29.2	46	-N	3	C		52		
GRP88285	03	2152+8	2214+8	2311	N17	E08	.225	17174	4.5	79	1N				270	2.8	FI
CULG	03	2152	2222	2341	N17	E08	.225	17174	4.5	109	1N		P	2222	370	3.8	FI
BIGB	03	2156	2214	2311	N15	E08	.199	17174	4.5	75	-N	2	C	2214	130	1.4	
HOLL	03	2200	2218	2304	N17	E06	.206	17174	4.4	64	1N	3	C		268		
GRP88286	03	2227>9	2309+1 2318	2347	S18	W50	.821	17167	30.2	80	1N				270	4.6	
HOLL	03	2227	2309	2354	S20	W49	.820	17167	30.3	87	1N	3	C		270		
LEAR	03	2249E	2310	0011	S18	W51	.829	17167	30.1	82D	1N	3	C		342		
CULG	03	2258	2318	2336	S16	W50	.813	17167	30.2	38	1B		C	2318	140	2.5	F
BIGB	03	2301	2310	2347	S17	W52	.834	17167	30.1	46	-N	2	C	2310	80	1.3	
MITK	03	2316E	0000	2341	S18	W50	.821	17167	30.2	25D	1F		C	2317	190		E
GRP88287	03	2316>9	2326+2	2339	N08	W56	.824	17169	29.8	23	-N				30	.5	D
CULG	03	2316	2326	2338	N08	W60	.861	17169	29.5	22	-N		C	2326	20	.4	
HOLL	03	2317	2328	2343	N07	W56	.825	17169	29.8	26	-N	3	C		29		
VORO	03	2325	2327	2340	N09	W57	.834	17169	29.7	15	-F		C	2327	54	1.0	D
LEAR	03	2326	2328	2337	N11	W56	.824	17169	29.8	11	-N	3	C		19		

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GRP88288	03	2329+2	2332+1	2342	N15	W04	.161	17174	3.7	13	-N				70	.7	
CULG	03	2329	2333	2345	N16	W04	.176	17174	3.7	16	-N	*	C	2333	90	.9	
HOLL	03	2331	2333	2342	N15	W04	.161	17174	3.7	11	-N	*	C		47		
LEAR	03	2331	2332	2342	N14	W04	.145	17174	3.7	11	-N	*	C		56		
289 LEAR	03	2357	2401	0023	N13	E45	.704	17177	7.4	26	-F	3	C		99		
290 CULG	04	0008U	0104U	0148	N20	E20	.400	17175	5.5	100D	?N		P	0104	440	4.8	FI
			IMP.1 NO : LEAR MITK														
GRP88291	04	0010+1	0016+3 0030	0033	N13	W03	.123	17174	3.8	23	-F						EJ
CULG	04	0010	0019	0120	N13	W03	.123	17174	3.8	70	-N		C	0019	150	1.5	
VORO	04	0011	0016	0030	N12	W05	.128	17174	3.6	19	-F		C	0016	22	.2	EJ
PURP	04	0026	0030	0033	N13	W03	.123	17174	3.8	7	-F		C				E
88292	04	0013+2	0016+1	0028	N09	E11	.194	17175	4.8	15	-F						D
VORO	04	0013	0016	0036	N09	E11	.194	17175	4.8	23	-F		C	0016	45	.5	D
PURP	04	0015	0017	0020	N09	E11	.194	17175	4.8	5	-F		P				D
GRP88293	04	0041+3	0044+0	0048	N23	W17	.394	17173	2.8	7	-F				40	.4	EG
CULG	04	0041	0044	0050	N23	W17	.308	17173	2.8	9	-N		C	0044	50	.6	
LEAR	04	0044	0044	0048	N22	W16	.372	17173	2.8	4	-F	3	C		34		
PURP	04	0045E	0045	0047	N23	W17	.394	17173	2.8	2D	-F		C				EG
GRP88294	04	0249+0	0250>9	0309	N15	W05	.169	17174	3.7	20	-N						E
MITK	04	0249	0250	0310	N16	W05	.184	17174	3.7	61	-N		C				E
LEAR	04	0249	0251	0309	N14	W05	.155	17174	3.7	20	-N	3	C		136		
PALE	04	0253E	0255U	0258D	N16	W06	.193	17174	3.7	5D	-F	2	C		31		
PURP	04	0257	0300	0307	N13	W04	.131	17174	3.8	10	1N		C				E
GRP88295	04	0740+0	0741+4	0750	N04	W70	.938	17169	29.1	10	?F						
LEAR	04	0740	0741	0745	N02	W71	.945	17169	29.0	5	?F	3	C		32		
			IMP.S IMP.2														
CATA	04	0740	0745	0755	N06	W70	.937	17169	29.1	15	2F		C	0745	225		
GRP88296	04	0758+2	0758+7	0814	N26	W20	.457	17172	2.8	16	-F						
LEAR	04	0747	0758	0812	N27	W20	.468	17172	2.8	25	-F	3	C		44		
KANZ	04	0758	0802	0814	N26	W20	.457	17172	2.8	16	-F	2					
CATA	04	0800	0805	0820	N26	W20	.457	17172	2.8	20	-F		C	0805	68	.8	
297 HTPR	04	1119	1123	1132	N14	W08	.188	17174	3.9	13	-F		C	1123	40	.4	E
298 CATA	04	1135	1135	1145	N10	E90	1.000	17181	11.2	10	?F		C	1135	45		
			IMP.1 NO : WEND HTPR														
299 HTPR	04	1208E		1215	N13	W10	.204	17174	3.8	7D	-F		C	1213	40	.4	E
300 KANZ	04	1307	1307	1311	N11	W07	.143	17174	4.0	4	-F	1					
	04	1418	1423	NO FLARE PATROL													
	04	1455	1512	NO FLARE PATROL													
301 HOLL	04	1757	1808	1845	N16	W14	.286	17174	3.7	48	-F	3	C		46		
302 HOLL	04	1814	1814	1834	N14	E23	.403	17177	6.5	20	-F	3	C		28		
303 HOLL	04	2101	2104	2122	S19	E45	.779		8.3	21	-N	3	C		91		
304 HOLL	04	2122	2122	2155	N16	W17	.328	17174	3.6	33	-F	3	C		21		
GRP88305	04	2143	2157+2	2255	S25	E47	.825	17179	8.4	72	?N						U
HOLL	04	2143	2159	2255	S24	E47	.820	17179	8.4	72	?F	3	C		71		
			IMP.S IMP.2														
CULG	04	2156E	2157U	2226D	S27	E48	.842	17179	8.5	30D	2N		P	2157	380	6.8	U
306 HOLL	04	2152	2153	2212	S19	W66	.939	17167	30.0	20	-N	3	C		26		
307 LEAR	04	2249E	2310	0011	S18	W51	.829	17171	1.1	82D	?N	3	C		342		
			IMP.1 NO : HOLL CULG PALE														

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308 HOLL	04	2320	2320	2329	N07	W70	.936	17169	29.7	9	-F	3	C		16		
309 HOLL	04	2344	2351	0014D	N20	E27	.491		7.0	30D	-F	3	C		33		
310 LEAR	05	0146	0153	0214	S09	E48	.769	17185	8.7	28	-F	3	C		66		
311 CULG	05	0219E	0220U	0248	S13	W67	.936	17167	30.1	29D	-F		C	0220	60		
312 CULG	05	0457	0506	0523	S16	E62	.909	17183	9.9	26	-N		C	0506	60		
313 CULG	05	0508	0517	0541	N18	E15	.319	17177	6.3	33	-F		C	0517	20	.2	
314 ABST	05	0628	0630	0642	N15	W21	.379	17174	3.7	14	-F		C	0630	87	.9	DJ
315 KANZ	05	0916	0920	0944	N14	W22	.389	17174	3.7	28	-F	1					
316 CATA	05	0935	0940	0950	N05	W85	.995	17169	29.0	15	-F		C	0940	28		
317 KANZ	05	1029	1029	1049	N16	W23	.414	17174	3.7	20	-F	1					
318 KANZ	05	1040	1044	1049	S17	W72	.966	17167	30.0	9	-F	1					
	05	1105	1106	NO FLARE PATROL													
GRP88319	05	1107	1127	1136	S17	W71	.961	17167	30.1	29	-F						
RAMY	05	1107	1127	1136	S18	W70	.958	17167	30.2	29	-F.	3	C				
CATA	05	1115E	1120	1120D	S16	W72	.965	17167	30.1	5D	-F		P	1120	56		
320 RAMY	05	1119	1126	1200	N13	W23	.400	17174	3.7	41	-F	3	C		37		
GRP88321	05	1226	1237+3	1311	N11	W23	.393	17174	3.8	45	-N						
RAMY	05	1226	1237	1311	N11	W24	.409	17174	3.7	45	-N	3	C		45		
CATA	05	1230E	1240	1245D	N11	W23	.393	17174	3.8	15D	1F		P	1240	197	2.2	
322 RAMY	05	1249	1253	1255	N16	E77	.969	17187	11.3	6	-F	3	C		26		
323 RAMY	05	1312	1312	1324	N14	W24	.419	17174	3.8	12	-F	3	C		21		
	05	1401	1414	NO FLARE PATROL													
324 HOLL	05	1415E	1416U	1432	N12	W25	.427	17174	3.7	17D	-F	3	C		36		
325 HOLL	05	1539	1629	1737	N12	W26	.442	17174	3.7	118	-F	3	C		53		
GRP88326	05	1555+2	1558+5	1636	N03	W86	.997	17169	29.2	41	-F						
HOLL	05	1555	1603	1639	N04	W82	.989	17169	29.5	44	-F	3	C				
RAMY	05	1557	1558	1633	N03	W90	1.000	17169	28.9	36	-F	3	C				
	05	2107	2116	NO FLARE PATROL													
327 CULG	05	2117	2131	2136	S10	E32	.586	17185	8.3	19	-N		C	2131	40	.5	
328 CULG	05	2210	2215	2241	N24	W21	.449		4.3	31	-N		C	2215	60	.7	L
329 CULG	05	2211	2218	2228	N19	W32	.552	17174	3.5	17	-F		C	2218	40	.5	
330 CULG	05	2247	2254	2305	S10	E29	.549	17185	8.1	18	-F		C	2254	80	1.0	H
331 CULG	05	2336	2340	2351	N15	W33	.551	17174	3.5	15	-F		C	2340	30	.4	
GRP88332	06	0007+2	0011+1	0023	S10	E33	.599	17185	8.5	16	-N				110	1.4	DH
CULG	06	0007	0012	0029	S10	E32	.586	17185	8.4	22	-B		C	0012	140	1.7	H
VORO	06	0007	0011	0023	S10	E33	.599	17185	8.5	16	-N		C	0011	108	1.3	DH
LEAR	06	0009	0011	0022	S10	E33	.599	17185	8.5	13	-N	3	C		56		
333 CULG	06	0114	0118	0144	S10	E32	.586	17185	8.5	30	-N		C	0118	100	1.2	H
GRP88334	06	0121+0	0124+1	0134	N07	W90	1.000	17169	29.3	13	-N						D
LEAR	06	0121	0124	0132	N07	W90	1.000	17169	29.3	11	-N	3	C				
VORO	06	0121	0125	0135	N08	W90	1.000	17169	29.3	14	1F		C	0125	90		D

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335	LEAR	06	0205	0208	0213	N14	E71	.940	17187	11.4	8	-F	3	C		45		
336	PEKG	06	0303	0305	0316	N06	W92	1.000	17169	29.2	13	-N		C	0305	17		A
GRP88337		06	0407+2	0410+2	0421	S10	E28	.536	17185	8.3	14	-N				50	.6	EH
	CULG	06	0407	0411	0428	S10	E30	.561	17185	8.4	21	-N		C	0411	120	1.4	H
	PEKG	06	0408	0410	0421	S09	E27	.516	17185	8.2	13	-N		C	0410	50	.6	E
	LEAR	06	0409	0412	0421	S10	E28	.536	17185	8.3	12	-N	3	C		34		
338	CULG	06	0433	0442U	0516	N11	E63	.886	17181	10.9	43	-F		C	0442	40	1.0	F
339	CULG	06	0439	0456	0516	S10	W60	.883		1.7	37	-F		C	0456	40	.8	
GRP88340		06	0449+7	0458+0	0518	N15	00	.148	17177	6.2	29	-N				80	.8	
	CULG	06	0449	0458	0523	N16	W01	.166	17177	6.1	34	-N		C	0458	100	1.0	
	LEAR	06	0456	0458	0513	N14	E02	.135	17177	6.4	17	-N	3	C		66		
GRP88341		06	0500+3	0503+3	0518	S10	E30	.561	17185	8.5	18	-N						H
	CULG	06	0500	0503	0518	S10	E30	.561	17185	8.5	18	-B		C	0503	80	1.0	H
	YUNN	06	0503	0506	0506D	S10	E30	.561	17185	8.5	3D	-N		P		32	.4	
342	ABST	06	0705	0706	0710	N11	E65	.901	17187	11.2	5	?F		C	0706	87		DJ
				IMP.1 NO : LEAR YUNN TACH														
GRP88343		06	0720+4	0724+1	0740	N12	W31	.516	17174	4.0	20	-F				70	.8	J
	CATA	06	0720	0725	0725D	N13	W31	.518	17174	4.0	5D	-F	*	P	0725	45	.5	
	ABST	06	0720	0724	0740	N14	W32	.535	17174	3.9	20	-F	*	C	0724	131	1.4	DJ
	LEAR	06	0722	0725	0739	N12	W33	.545	17174	3.8	17	-F	*	C		76		
	HTPR	06	0724	0725	0743	N12	W31	.516	17174	4.0	19	-F	*	C	0725	70	.8	E
344	LEAR	06	0721	0723	0738	N11	E61	.869	17181	10.9	17	-F	3	C		20		
GRP88345		06	0805+2	0808+1	0817	S09	E26	.503	17185	8.3	12	-F				30	.3	D
	LEAR	06	0805	0808	0817	S10	E25	.498	17185	8.2	12	-F	3	C		28		
	ISTA	06	0806		0817	S09	E27	.516	17185	8.4	11	-F						D
	MANI	06	0807	0809	0820	S09	E26	.503	17185	8.3	13	-F	2	P		30	.4	
346	ABST	06	0925	0926	0940	N26	W47	.753	17172	2.9	15	?F		C	0926	174	2.7	EJ
				IMP.1 NO : HTPR LEAR														
347	ABST	06	0944	0946	0950	N11	E65	.901	17187	11.3	6	?F		C	0946	87		DV
				IMP.1 NO : HTPR														
348	HTPR	06	0946	0948	0957	N10	E50	.761	17181	10.2	11	-F		C	0948	20	.3	
349	HTPR	06	1009	1011	1025	S10	E20	.436	17178	7.9	16	-B		C	1011	40	.4	E
GRP88350		06	1036	1048+1	1138	S09	E22	.451	17178	8.1	62	-N				100	1.1	E
				1120														
	HTPR	06	1036	1048	1135	S10	E20	.436	17178	7.9	59	-N		C	1048	100	1.0	E
	WEND	06	1043E		1103D	S09	E22	.451	17178	8.1	20D	-N		C	1043	100	1.1	
	ATHN	06	1046	1049	1132D	S09	E27	.568	17178	8.5	46D	-N	3	S	1049	32	.4	
	CATA	06	1115E	1120	1140D	S10	E22	.460	17178	8.1	25D	-F		P	1120	68	.8	
GRP88351		06	1205+5	1210	1218	N18	W38	.626	17174	3.7	13	-F				80	1.0	E
	WEND	06	1205		1216	N19	W38	.629	17174	3.7	11	-F		C	1209	88	1.2	
	HTPR	06	1208		1218D	N17	W40	.649	17174	3.5	10D	-F		C	1209	50	.7	E
	CATA	06	1210	1210	1220	N18	W38	.626	17174	3.7	10	-F		C	1210	112	1.5	
352	RAMY	06	1354	1359	1427	N14	E58	.843	17181	10.9	33	-F	3	C		46		
		06	1401	1402	NO FLARE PATROL													
		06	1437	1439	NO FLARE PATROL													
353	HTPR	06	1530E		1542D	N14	E63	.885	17187	11.4	12D	-F		C	1530	60	1.3	E
354	HTPR	06	1549		1603D	N12	W35	.573	17174	4.0	14D	-F		C	1553	50	.6	E

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GRP88355	06	2312+1	2315+1	2327	N14	E66	.908	17187	11.9	15	-N				90		
LEAR	06	2312	2316	2325	N14	E66	.908	17187	11.9	13	-N	3	C		112		
PALE	06	2312	2315U	2324D	N14	E63	.885	17187	11.7	12D	-F	3	C		85		
BIGB	06	2313	2316	2328	N14	E68	.921	17187	12.1	15	-N	2	C	2316	40		
356 LEAR	07	0118	0120	0128	N14	W05	.157	17177	6.7	10	-F	3	C		24		
357 LEAR	07	0204	0205	0212	N15	E65	.901	17187	12.0	8	-F	3	C		56		
358 LEAR	07	0900	0902	0913	S08	E89	1.000	17188	14.0	13	-F	3	C				
GRP88359	07	0922>9	0930+6	0938	S07	E89	1.000	17188	14.1	16	1N				80		ADJ
LEAR	07	0922	0930	0940	S07	E83	.994	17188	13.6	18	1B	3	C				
KANZ	07	0924	0931	0939	S06	E85	.997	17188	13.8	15	-B	3					
CATA	07	0930	0930	0935	S08	E90	1.000	17188	14.1	5	1F		C	0930	45		
HTPR	07	0933		0933D	S10	E90	1.000	17188	14.1		1B		C	0933	100		A
ABST	07	0935E	0936	0940	S06	E90	1.000	17188	14.1	5D	1N		P	0936	87		ADJ
KHAR	07	0935E		0937D	S08	E90	1.000	17188	14.1	2D	-N		P				
360 RAMY	07	1133	1133	1143	N13	W52	.784	17174	3.6	10	-N	3	C		48		
361 RAMY	07	1414	1415	1418	S07	E90	1.000	17188	14.3	4	-N	3	C				D
GRP88362	07	1421+7	1432+0	1631D	N15	E52	.785	17187	11.5	130	-B				120	2.0	D
			1512														
HOLL	07	1421	1432	1715	N13	E49	.751	17187	11.3	174	1B	3	C		163		D
RAMY	07	1428	1432	1457	N17	E57	.835	17187	11.9	29	-B	3	C		84		D
RAMY	07	1502	1512U	1523	N18	E51	.777	17187	11.5	21	-N	3	C		55		
RAMY	07	1602	1608	1631	N19	E57	.836	17187	11.9	29	-N	3	C		43		
363 HOLL	07	2006	2030	2101	N16	E54	.806	17187	11.9	55	-N	3	C		86		
364 HOLL	07	2012	2014	2022	N15	W20	.365	17177	6.3	10	-F	3	C		30		
365 HOLL	07	2115	2119	2219	N12	W54	.804	17174	3.8	64	-N	3	C		52		
GRP88366	07	2123+3	2127+2	2200	N14	E53	.794	17187	11.9	37	1N				140	2.4	D
PALE	07	2123	2127	2155	N15	E52	.785	17187	11.8	32	1N	2	C		157		D
BIGB	07	2126	2129	2204	N14	E54	.807	17187	11.9	38	1N	2	C	2129	120	2.1	
367 PALE	07	2212	2216	2223	N16	E49	.753	17187	11.6	11	-F	3	C		57		D
GRP88368	07	2305+4	2308>9	0009	N15	E52	.785	17187	11.9	64	2B						EZ
HOLL	07	2120	2308	2358D	N16	E54	.806	17187	11.9	113D	2B	3	C		475		
MANI	07	2305	2312	2319D	N14	E51	.773	17187	11.8	14D	2B	1	V		550	8.8	ZE
PEKG	07	2306	2318	0000	N16	E50	.764	17187	11.7	54	3B		C	2318	1178	18.2	FZ
BIGB	07	2306	2312	0038	N15	E51	.774	17187	11.8	92	2B	2	C	2312	400	6.6	
LEAR	07	2306	2316	0008	N14	E53	.794	17187	11.9	62	2B	3	C		872		
PALE	07	2308	2309	0011D	N15	E51	.774	17187	11.8	3D	2B	3	C		496		
PURP	07	2309	2313	2322	N15	E53	.795	17187	11.9	13	2B		C	2317	340	5.7	
VORO	07	2311	2320	0030	N16	E52	.785	17187	11.9	79	2N		C	2320	627	10.5	E
GRP88369	08	0140+3	0142+2	0156	S12	E83	.995	17188	14.3	16	-N						EH
LEAR	08	0124	0142	0145	S12	E83	.995	17188	14.3	21	-N	3	C				
PEKG	08	0140	0144	0156	S13	E83	.996	17188	14.3	16	1B		C	0144	109		EH
PALE	08	0143	0143	0156	S10	E73	.964	17188	13.5	13	-N	2	C				
GRP88370	08	0206+2	0207+3	0226	N16	E45	.708	17187	11.5	20	-F				50	.7	D
PALE	08	0206	0209	0228	N16	E43	.684	17187	11.3	22	-F	2	C		60		
LEAR	08	0206	0207	0215	N16	E45	.708	17187	11.5	9	-N	3	C		22		
PEKG	08	0208	0210	0226	N17	E45	.710	17187	11.5	18	-F		C	0210	46	.7	D
GRP88371	08	0223+6	0235+0	0249	N12	E34	.559	17181	10.6	26	-F				50	.6	
LEAR	08	0223	0235	0254	N12	E35	.573	17181	10.7	31	-N	3	C		63		
PALE	08	0229	0235	0243	N13	E34	.561	17181	10.7	14	-F	2	C		45		
GRP88372	08	0259+5	0306+0	0316	S08	E75	.971	17188	13.7	17	-F				60		D
LEAR	08	0259	0306	0328	S07	E75	.970	17188	13.7	29	-N	3	C				
PEKG	08	0304	0306	0310	S08	E74	.967	17188	13.7	6	-F		P	0306	42	.8	D
VORO	08	0310E	0310	0316	S08	E80	.988	17188	14.1	6D	1F		C	0310	90		C

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	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
373	LEAR	08	0404	0405	0417	N11	E45	.703	17187	11.5	13	-N	3	C		30		
374	PEKG	08	0438	0441	0448	N13	W84	.992		1.9	10	-N		P	0441	42		DH
375	YUNN	08	0438	0440	0440D	S18	E90	1.001	17199	14.9	2D	?N		P		48		A
				IMP.1 NO : LEAR PEKG PURP MITK														
376	CULG	08	0518	0520	0536	S13	E60	.888	17188	12.7	18	-F		C	0520	20	.4	
GRP88377		08	0559+4	0603+5	0620	S31	E50	.871	17190	12.0	21	-N				60	1.2	DJ
	ABST	08	0559	0605	0620	S33	E54	.903	17190	12.3	21	-F		C	0605	87	1.9	DJ
	PURP	08	0600	0603	0619	S31	E48	.858	17190	11.8	19	-N		P				E
	CULG	08	0601	0608	0636	S30	E50	.867	17190	12.0	35	-N		C	0608	40	.8	
	PEKG	08	0603	0608	0616	S31	E51	.878	17190	12.1	13	-N		C	0608	42	.9	D
378	ABST	08	0707E	0707	0722	N15	E26	.453	17181	10.2	15D	-F		P	0707	87	1.1	DJ
379	ABST	08	0707E	0707	0715	S11	E76	.977	17188	14.0	8D	?F		P	0707	87		DJ
				IMP.1 NO : PEKG PURP CULG LEAR TACH C														
380	ABST	08	0707E	0711	0728	N13	E50	.762	17187	12.0	21D	?F		P	0711	131	2.1	EJ
				IMP.1 NO : PEKG PURP CULG TACH CATA														
GRP88381		08	0756+4	0756+6	0805	S09	E76	.975	17188	14.0	9	-F				30		D
	LEAR	08	0756	0756	0802	S09	E77	.979	17188	14.1	6	-F	3	C				
	BUCA	08	0756	0758	0759D	S09	E77	.979	17188	14.1	3D	-N		C	0758	43		D
	PEKG	08	0759	0802	0809	S10	E75	.972	17188	14.0	10	-F		C	0802	29		D
	CATA	08	0800	0800	0805	S09	E76	.967	17188	14.0	5	-F		C	0800	28		
GRP88382		08	0757+8	0802+3	0831	N10	E44	.691	17187	11.6	34	-N				60	.8	DJ
				0828														
	ABST	08	0757	0805	0836	N10	E44	.691	17187	11.6	39	-N	*	C	0805	87	1.3	DJ
	ISTA	08	0800	0805	0815	N11	E46	.715	17187	11.8	15	-N	*					D
	PEKG	08	0800	0802	0825	N11	E44	.691	17187	11.6	25	-N	*	C	0802	63	.9	E
	LEAR	08	0802	0805	0821	N10	E45	.703	17187	11.7	19	-F	*	C		28		
	CATA	08	0805	0805	0845	N11	E44	.691	17187	11.6	40	-F	*	C	0805	68	1.0	
	BUCA	08	0810E	0828	0842	N10	E45	.703	17187	11.7	32	-N	*	C	0828	64	.9	
GRP88383		08	0841+4	0844+1	0851	N13	W22	.385	17177	6.7	10	-F						
	LEAR	08	0841	0844	0851	N13	W23	.401	17177	6.6	10	-F	3	C		21		
	CATA	08	0845	0845	0850	N14	W22	.390	17177	6.7	5	-F		C	0845	56	.6	
384	ATHN	08	0851E	0852	0907	S09	W07	.290	17178	7.8	16D	-B	2	S	0852	48	.5	
GRP88385		08	0904>9	0911+4	0955	S31	E51	.878	17190	12.2	51	-N				100	2.0	EJ
	ABST	08	0904	0911	0955	S33	E52	.892	17190	12.3	51	1N		C	0911	131	2.8	EJ
	CATA	08	0915	0915	0955	S30	E50	.867	17190	12.1	40	-F		C	0915	84	1.7	
386	ABST	08	0936	0938	0950	S09	W03	.270	17185	8.2	14	-F		C	0938	131	1.3	EJ
387	CATA	08	1000	1000	1020	S15	E70	.954	17188	13.7	20	?F		C	1000	84		
				IMP.1 NO : ABST														
388	CATA	08	1105	1105	1115	N11	E42	.666	17187	11.6	10	-F		C	1105	45	.6	T
GRP88389		08	1123>9	1157+3	1237	N11	E41	.653	17187	11.5	74	1N				220	2.9	D
	RAMY	08	1123	1157	1233	N13	E41	.655	17187	11.5	70	1B	3	C		213		D
	CATA	08	1155	1200	1240	N10	E41	.652	17187	11.6	45	1F		C	1200	225	3.0	
390	RAMY	08	1212	1219	1223	N16	W58	.844	17174	4.2	11	-N	3	C		36		
391	RAMY	08	1247	1247	1253	N15	W59	.852	17174	4.1	6	-F	3	C		28		
392	RAMY	08	1313	1315	1321	S09	E72	.958	17188	14.0	8	-N	3	C				
393	RAMY	08	1413	1413	1441	N12	E40	.641	17187	11.6	28	-N	3	C		57		
GRP88394		08	1533+7	1537+3	1624	N11	E37	.600	17187	11.4	51	1B				270	3.4	D
	RAMY	08	1533E	1537U	1618	N16	E38	.622	17187	11.5	45D	1B	3	C		275		
	BIGB	08	1535	1539	1734	N09	E36	.584	17187	11.3	119	1B	2	C	1539	180	2.3	
	HOLL	08	1540	1540	1624	N11	E37	.600	17187	11.4	44	1B	3	C		346		D

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88395	08	1648+0	1703+2	1812D	N18	W74	.956	17173	3.1	84	1N						
HOLL	08	1648	1703	1812	N18	W73	.951	17173	3.2	84	1N	3	C				
BIGB	08	1648	1705	2006	N18	W75	.960	17173	3.1	198	1B	2	C	1705	100		
GRP88396	08	1909>9	1909	1945	N15	E42	.670	17187	11.9	36	-F						
			1932														
HOLL	08	1909	1909	1936	N16	E43	.684	17187	12.0	27	-N	3	C		19		
PALE	08	1922	1932	1953	N15	E41	.658	17187	11.9	31	-F	2	C		21		
GRP88397	08	1910+7	1914+5	1941	S13	E63	.910	17188	13.5	31	-N						
HOLL	08	1910	1914	1941	S12	E63	.908	17188	13.5	31	1N	3	C		159		
BIGB	08	1915	1918	1928	S15	E65	.926	17188	13.7	13	-N	2	C	1918	80		
PALE	08	1917	1919	2005	S13	E62	.903	17188	13.5	48	-F	2	C		29		
GRP88398	08	1939+0	1939+1	1953	S05	E66	.920	17188	13.8	14	-F				20		
HOLL	08	1939	1940	1953	S05	E67	.926	17188	13.8	14	-F	3	C		15		
PALE	08	1939	1939	1953	S06	E65	.914	17188	13.7	14	-F	2	C		22		
GRP88399	08	2003+7	2027+1	2112	S07	E67	.928	17188	13.9	69	1B				210		
			2037+6														
HOLL	08	2003	2027	2105	S06	E67	.927	17188	13.9	62	1B	2	C		207		
PALE	08	2010	2028	2114	S07	E65	.915	17188	13.7	64	2N	2	C		280		
BIGB	08	2025	2037	2117	S08	E70	.947	17188	14.1	52	1B	2	C	2031	120		
CULG	08	2042E	2043	2109U	S08	E68	.936	17188	14.0	27D	2N		P	2043	200		
GRP88400	08	2125+4	2129+1	2138D	N10	E35	.571	17187	11.5	13	-N						
CULG	08	2125	2129	2210D	N09	E35	.570	17187	11.5	45D	-N		C	2129	120	1.4	
HOLL	08	2129	2130	2138	N12	E36	.587	17187	11.6	9	-N	3	C		47		
GRP88401	08	2148+3	2149+5	2209	S13	E63	.910	17188	13.6	21	1N				100	2.3	F
HOLL	08	2134	2153	2209	S10	E61	.890	17188	13.5	35	1N	3	C		137		
PALE	08	2148E	2149U	2157D	S12	E61	.894	17188	13.5	9D	-F	2	C		20		
CULG	08	2148	2154	2207	S16	E70	.955	17188	14.2	19	1N		C	2154	130		F
BIGB	08	2151	2153	2218	S14	E66	.931	17188	13.9	27	-B	2	C	2153	70		
402 CULG	08	2220	2224	2236	N20	E66	.909	17191	13.9	16	-F		C	2224	30	.7	
GRP88403	08	2254+3	2258>9	2337	N15	E39	.632	17187	11.9	43	1N				280	3.7	J
			2324														
CULG	08	2254	2301	2352	N15	E38	.619	17187	11.8	58	2B		C	2301	480	6.3	F
LEAR	08	2255	2301	2329	N14	E40	.643	17187	12.0	34	1B	3	C		296		D
HOLL	08	2255	2258	2337	N16	E37	.609	17187	11.7	42	1B	3	C		198		
VORO	08	2256	2308	2310D	N14	E42	.669	17187	12.1	14D	1F		C	2308	314	4.4	EJ
BIGB	08	2257	2303	2342	N15	E38	.619	17187	11.8	45	1B	2	C	2303	170	2.2	
PALE	08	2304E	2304U	2333D	N14	E38	.617	17187	11.8	29D	-N	2	C		316		
PEKG	08	2323E	2324	2325D	N15	E41	.658	17187	12.0	2D	-N		P	2324	38	.5	D
404 CULG	08	2308	2312	2325	S15	E60	.892	17188	13.5	17	?N		C	2312	130	2.8	
			IMP.1 NO : BIGB HOLL PALE LEAR														
405 HOLL	08	2324	2331	2338	S07	E66	.922	17188	13.9	14	-F	3	C		16		
406 CULG	08	2339	2341	2355	S13	E14	.404	17183	10.0	16	-N		C	2341	80	.9	
407 LEAR	08	2348	2350	2358	S09	E69	.942	17188	14.2	10	-F	3	C		22		
408 LEAR	09	0034	0037	0040	S12	E61	.894	17188	13.6	6	-F	3	C		13		
GRP88409	09	0056+4	0101+1	0117	N08	E22	.373	17181	10.7	21	-F				110	1.2	
CULG	09	0056	0101	0121	N10	E21	.360	17181	10.6	25	-N		C	0101	120	1.3	F
VORO	09	0100	0102	0112	N07	E23	.388	17181	10.8	12	-F		C	0102	108	1.2	E
410 LEAR	09	0142	0144	0151	S09	E67	.930	17188	14.1	9	-F	3	C		23		
GRP88411	09	0151+4	0159+1	0215	N10	E22	.376	17181	10.7	24	-F				50	.5	F
CULG	09	0151	0159	0223	N10	E22	.376	17181	10.7	32	-N		C	0159	70	.8	F
LEAR	09	0155	0200	0206	N10	E23	.392	17181	10.8	11	-F	3	C		30		
GRP88412	09	0215+1	0219+1	0232	N16	W38	.622	17177	6.2	17	-F						
CULG	09	0215	0220	0236	N17	W40	.650	17177	6.1	21	-F		C	0220	80	1.0	
LEAR	09	0216	0219	0228	N16	W37	.609	17177	6.3	12	-F	3	C		28		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Time (UT)	Measurement Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88413	09	0226+2	0237+0	0254	S10	E59	.874	17188	13.5	28	1N				140	2.8	
LEAR	09	0226	0237	0257	S12	E59	.878	17188	13.5	31	-N	3	C		58		
CULG	09	0228	0237	0251	S10	E60	.882	17188	13.6	23	1N		C	0237	160	3.2	
LEAR	09	0236	0237	0247	S10	E56	.849	17188	13.3	11	-N	3	C		64		
GRP88414	09	0231+8	0241+4	0308	N10	E34	.557	17187	11.7	37	-B						J
LEAR	09	0231	0242	0311	N10	E34	.557	17187	11.7	40	-B	3	C		133		
VORO	09	0235	0241	0305	N10	E33	.543	17187	11.6	30	1N		C	0241	179	2.3	EJ
CULG	09	0239	0244	0319	N10	E34	.557	17187	11.7	40	-B		C	0244	120	1.4	
MANI	09	0240E	0242U	0245D	N14	E36	.591	17187	11.8	5D	-B	1	V		50	.6	
PEKG	09	0240E	0245	0250	N10	E33	.543	17187	11.6	10D	-N		D	0245	63	.8	D
GRP88415	09	0403+1	0406+0	0415	N15	W35	.580	17177	6.5	12	-N				80	1.0	
CULG	09	0403	0406	0414	N15	W35	.580	17177	6.5	11	-N		C	0406	80	1.0	
LEAR	09	0404	0406	0415	N15	W35	.580	17177	6.5	11	-N	3	C		89		
GRP88416	09	0513+0	0514+1	0531	N16	W40	.647	17177	6.2	18	-N				90	1.2	DJV
ABST	09	0513	0514	0525	N16	W40	.647	17177	6.2	12	-N		C	0514	137	1.7	DJV
LEAR	09	0513	0514	0531	N15	W35	.580	17177	6.6	18	-N	3	C		88		
CULG	09	0513	0515	0538	N18	W40	.652	17177	6.2	25	-N		C	0515	60	.8	
417 CULG	09	0609	0612	0620	S30	E39	.789	17190	12.2	11	-N		C	0612	30	.4	
418 LEAR	09	0700	0701	0715	S13	E58	.873	17188	13.6	15	-F	3	C		19		
GRP88419	09	0731+4	0733+3	0750	S12	E55	.845	17188	13.4	19	-N						E
HTPR	09	0731	0733	0750	S14	E55	.850	17188	13.4	19	-N		C	0733	60	1.0	E
BUCA	09	0735	0736	0750	S11	E56	.851	17188	13.5	15	1F		C	0736	150	3.2	
GRP88420	09	1124E	1127+1 1225	1235	S13	E51	.811	17188	13.3	71	1B				230	3.8	
ATHN	09	1124E	1127	1226	S17	E50	.815	17188	13.2	62D	1B	3	S	1127	254	4.4	
RAMY	09	1125E	1128	1308	S11	E53	.824	17188	13.5	103D	1B	3	C		215		
CATA	09	1210E	1235	1235D	S13	E58	.873	17188	13.9	25D	1F		P	1235	140	3.0	
CATA	09	1210E	1225	1235D	S14	E45	.755	17188	12.9	25D	-F		P	1225	112	1.8	
421 RAMY	09	1142	1148	1208	N13	E27	.461	17187	11.5	26	-B	3	C		194		
422 RAMY	09	1227	1244	1252	N13	E16	.295	17181	10.7	25	-F	3	C		58		
423 HTPR	09	1321E		1329	S10	E58	.866	17188	13.9	8D	-F		C	1323	20	.4	
424 HTPR	09	1400	1405	1410	N10	E18	.312	17181	10.9	10	-F		C	1405	30	.3	
425 HTPR	09	1402	1403	1410	S06	E57	.850	17188	13.9	8	-N		C	1403	70	1.4	E
426 HOLL	09	1416	1417	1425	S05	E56	.839	17188	13.8	9	-N	3	C		70		
427 HTPR	09	1417	1419	1445	N17	E22	.407	17187	11.2	28	-F		C	1419	20	.2	
428 HTPR	09	1437	1438	1440	N12	E15	.273	17181	10.7	3	-F		C	1438	30	.3	
429 HOLL	09	1534	1537	1542	S12	E52	.818	17188	13.5	8	-F	3	C		17		
430 HTPR	09	1621	1622	1626	N15	E34	.566	17187	12.2	5	-N		C	1622	60	.7	E
431 HOLL	09	1714	1715	1724	N11	E14	.252	17181	10.8	10	-F	3	C		22		
432 HOLL	09	1749	1750	1811	S10	E49	.782	17188	13.4	22	-B	3	C		105		
433 HOLL	09	1852	1854	1902	S04	E53	.808	17188	13.8	10	-N	3	C		40		
434 RAMY	09	1933E		1939	S07	E51	.794	17188	13.6	6D	-N	3	C		42		
GRP88435	09	1951+4	1958+2	2033	S11	E49	.785	17188	13.5	42	1B						
HOLL	09	1951	1958	2033	S10	E49	.782	17188	13.5	42	1B	3	C		173		
BIGB	09	1955	2000	2033	S13	E46	.762	17188	13.3	38	-B	2	C	2000	80	1.2	
RAMY	09	2002E		2004D	S11	E50	.795	17188	13.6	2D	1B	3	C		232		
436 HOLL	09	2030	2034	2053	N12	E24	.412	17187	11.7	23	-F	3	C		22		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
437 CULG	09	2057	2116	2135	N18	E23	.427	17187	11.6	38	-F		C	2116	30	.3	
438 CULG	09	2120	2124	2150U	S11	E48	.775	17188	13.5	30D	-F		C	2124	60	1.0	F
439 CULG	09	2219	2220	2238	S09	E50	.789	17188	13.7	19	-N		C	2220	50	.8	
440 CULG	09	2233	2237	2249	N15	E31	.525	17187	12.3	16	-N		C	2237	80	1.0	
GRP88441	09	2254+2	2300+2	2345	N14	E32	.536	17187	12.4	51	-N				150	1.8	F
CULG	09	2254	2300	2345	N15	E28	.482	17187	12.1	51	-N		C	2300	160	1.8	F
MANI	09	2256	2302	2304D	N14	E37	.604	17187	12.7	8D	-B	1	V		150	1.9	F
GRP88442	09	2329+6	2336+6	0002	S10	E52	.812	17188	13.9	33	-N				60	1.0	F
PALE	09	2329E	2342U	2342D	S10	E48	.772	17188	13.6	13D	-F	2	C		90		
CULG	09	2334	2337	0002	S10	E52	.812	17188	13.9	28	-N		C	2337	60	1.0	F
HOLL	09	2335	2336	2346	S07	E49	.773	17188	13.7	11	-N	3	C		22		
HOLL	09	2343	2351	2351D	S06	E61	.884	17188	14.6	8D	-F	3	C		35		
443 CULG	09	2342	2348	2355	S13	E01	.331	17183	10.1	13	-F		C	2348	60	.6	
GRP88444	10	0000>9	0008+4	0014	S09	E48	.768	17188	13.6	14	-F				90	1.4	D
PALE	10	0000E	0008U	0010D	S10	E47	.761	17188	13.5	10D	-F	*	C		126		
VORO	10	0011	0012	0014	S09	E49	.779	17188	13.7	3	-F	*	C	0012	63	1.0	D
GRP88445	10	0022E	0024+3	0054	S09	E49	.779	17188	13.7	32	1N				140	2.2	K
CULG	10	0005	0027	0054U	S09	E49	.779	17188	13.7	49D	1N	*	C	0027	190	3.0	FKT
VORO	10	0022	0024	0037	S05	E49	.768	17188	13.7	15	1N	*	C	0024	152	2.5	E
PALE	10	0032E	0032U	0042D	S10	E47	.761	17188	13.5	10D	-F	*	C		92		
PALE	10	0046E	0054U	0056D	S10	E47	.761	17188	13.6	10D	-F	*	C		72		
GRP88446	10	0025+9	0031+8	0110	N12	00	.101	17181	10.0	45	-F						D
CULG	10	0025	0039U	0138	N12	W02	.106	17181	9.9	73	-N		C	0039	160	1.6	
VORO	10	0028	0031	0035	N13	E00	.118	17181	10.0	7	-F		C	0031	99	1.0	D
LEAR	10	0034	0035	0110	N12	E00	.101	17181	10.0	36	-F	2	C		37		
GRP88447	10	0123+2	0126+1	0142	N15	E29	.497	17187	12.2	19	-N				60	.7	
LEAR	10	0123	0127	0142	N15	E30	.511	17187	12.3	19	-B	2	C		47		D
CULG	10	0124	0127	0146	N14	E29	.493	17187	12.2	22	-N		C	0127	100	1.2	F
VORO	10	0125	0126	0131	N16	E30	.497	17187	12.3	6	-N		C	0126	81	.9	E
PALE	10	0126E	0127U	0142	N17	E28	.491	17187	12.2	16D	-F	2	C		30		
448 LEAR	10	0134	0134	0142	S12	E47	.768	17188	13.6	8	-N	2	C		46		
449 LEAR	10	0202	0202	0212	S08	W26	.494	17185	8.1	10	-F	3	C		20		
450 LEAR	10	0212	0215	0225	N15	W47	.730	17177	6.6	13	-F	3	C		36		
451 CULG	10	0252	0252	0253	S10	E46	.750	17188	13.6	1	-N		C	0252	50	.8	T
GRP88452	10	0258+2	0259+1	0303	S12	E49	.788	17188	13.8	5	-F				30	.5	
CULG	10	0258	0259	0302	S16	E50	.812	17188	13.9	4	-F		C	0259	40	.6	T
LEAR	10	0300	0300	0303	S08	E49	.776	17188	13.8	3	-F	3	C		18		
GRP88453	10	0259+7	0305>9	0341	N16	E23	.416	17187	11.8	42	-N				170	1.9	
CULG	10	0259	0315U	0400U	N15	E23	.410	17187	11.8	61D	1N	*	C	0315	430	4.7	
YUNN	10	0300	0305	0312	N17	E26	.463	17187	12.1	12	1F	*	C		193	2.2	
LEAR	10	0301	0310	0401	N14	E21	.376	17187	11.7	60	-N	*	C		147		
PALE	10	0306	0308U	0322D	N19	E24	.448	17187	11.9	16D	-F	*	C		37		
GRP88454	10	0300+3	0305+0	0311	N17	W52	.787	17177	6.2	11	-F				70	1.2	
YUNN	10	0300	0305	0310	N17	W54	.807	17177	6.1	10	-F		C		64	1.1	
CULG	10	0303	0305	0311U	N17	W51	.777	17177	6.3	8D	-F		C	0305	80	1.2	
GRP88455	10	0333	0335 0340	0435D	S07	E47	.752	17188	13.7	62	?F						F
CULG	10	0333	0335	0435U	S09	E51	.799	17188	14.0	62D	?F		C	0335	180	3.1	TF
			IMP.1 NO : LEAR YUNN														
CULG	10	0340	0340	0346	S06	E43	.702	17188	13.4	6	-F		C	0340	50	.7	T
456 CULG	10	0346	0347	0350	S06	W28	.508	17178	8.1	4	-N		C	0347	90	1.0	

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No.	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
457	CULG	10	0349	0350	0352	N11	E05	.120	17181	10.5	3	-N		C	0350	60	.6	
458	CULG	10	0512	0512	0518	S10	E51	.802	17188	14.0	6	-N		C	0512	100	1.6	T
459	LEAR	10	0517	0523	0537	N15	W51	.775	17177	6.4	20	-F	3	C		46		
GRP88460		10	0618>9	0630+2 0645+6	0708	S10	E46	.750	17188	13.7	50	1N				150	2.2	IJK
	CULG	10	0618U	0649U	0710U	S11	E43	.721	17188	13.5	52D	2N		C	0649	510	7.1	TFIK
	ABST	10	0621E	0632	0715D	S14	E45	.755	17188	13.6	54D	1F		P	0632	305	4.6	FJ
	YUNN	10	0625	0630	0655	S08	E48	.765	17188	13.9	30	-N		C		64	1.0	EK
	LEAR	10	0631	0645	0716	S08	E47	.755	17188	13.8	45	1B	3	C		174		
	MANI	10	0638E	0639	0654D	S10	E53	.821	17188	14.3	16D	-N	1	V		80	1.4	F
	ISTA	10	0640	0645	0650	S08	E47	.727	17188	13.8	10	1N						E
	ATHN	10	0647E	0648	0727	S12	E50	.798	17188	14.0	40D	1N	2	S	0648	143	2.4	
	LEAR	10	0650	0651	0658	S13	E41	.708	17188	13.4	8	-N	3	C		37		
	HTPR	10	0702E		0720	S07	E48	.762	17188	13.9	18D	-N		C	0702	60	.9	E
	HTPR	10	0702E		0710	S14	E33	.622	17188	12.8	8D	-F		C	0702	30	.4	E
461	ABST	10	0649	0654	0700	N11	E05	.120	17181	10.7	11	-F		C	0654	87	.9	DJ
GRP88462		10	0701+1	0703+1	0708	N11	E06	.132	17181	10.7	7	-F				50	.5	
	LEAR	10	0701	0704	0710	N11	E06	.132	17181	10.7	9	-F	3	C		40		
	CULG	10	0702	0703	0706	N11	E06	.132	17181	10.7	4	-F		C	0703	70	.7	
463	HTPR	10	0725	0803	0904	S13	E40	.696	17188	13.3	99	-F		C	0803	80	1.0	E
GRP88464		10	0749+6	0754+5	0810	N14	E22	.391	17187	12.0	21	-N				40	.4	J
	ABST	10	0733	0740	0807	N11	E12	.221	17187	11.2	34	-F		C	0740	87	.9	DJ
	HTPR	10	0749	0759	0814	N16	E24	.430	17187	12.1	25	-B		C	0759	30	.3	
	ATHN	10	0753E	0754	0812	N13	E27	.461	17187	12.4	19D	-N	2	S	0754	48	.6	
	YUNN	10	0755	0758	0805	N17	E13	.287	17187	11.3	10	-N		C		48	.5	
	ISTA	10	0755		0805	N15	E28	.573	17187	12.4	10	-F						E
	CATA	10	0805E	0805	0820	N12	E25	.428	17187	12.2	15D	-F		P	0805	56	.6	
465	HTPR	10	1017	1026	1045	N18	E11	.274	17187	11.3	28	-F		C	1026	40	.4	
466	CATA	10	1045E	1055	1110D	S38	E45	.873	17195	13.8	25D	?F		P	1055	197	4.2	
				IMP.1 NO : HTPR														
GRP88467		10	1049+1	1051+4 1104	1117	S13	E39	.685	17188	13.4	28	1N				200	2.7	EK
	BERN	10	1049	1052	1110	S15	E40	.707	17188	13.5	21	1B				200		
	ATHN	10	1049E	1051	1119	S13	E40	.696	17188	13.5	30D	1B	3	S	1051	175	2.5	
	HTPR	10	1049		1059D	S13	E37	.662	17188	13.2	10D	-B		C	1052	140	1.7	E
	CATA	10	1050	1055	1110D	S12	E38	.669	17188	13.3	20D	1F		P	1055	225	3.1	
	HTPR	10	1102E	1104	1117	S13	E36	.651	17188	13.2	15D	-B		C	1104	140	1.7	EK
GRP88468		10	1126+2	1129+1	1146	S14	E40	.702	17188	13.5	20	-B				100	1.4	EK
	RAMY	10	1126E	1129U	1131D	S08	E40	.674	17188	13.5	5D	-B	3	C		121		
	HTPR	10	1127	1130	1145	S14	E41	.712	17188	13.6	18	-B		C	1130	110	1.4	EK
	ATHN	10	1128	1130	1147	S14	E39	.690	17188	13.4	19	-B	3	S	1130	80	1.1	
469	HTPR	10	1205	1213	1225	S08	W30	.547	17185	8.3	20	-F		C	1213	20	.2	
GRP88470		10	1237+0	1240+0	1248	S08	E41	.686	17188	13.6	11	-F						
	KHAR	10	1237E	1240	1250D	S08	E43	.709	17188	13.8	13D	-F		P				
	HTPR	10	1237	1240	1245	S09	E40	.678	17188	13.5	8	-F		C	1240	30	.4	
GRP88471		10	1300+5	1313	1336D	S08	E45	.732	17188	13.9	36	-N						E
	KHAR	10	1300E	1313	1336D	S07	E47	.752	17188	14.1	36D	1N		P	1322	160	2.6	E
	HTPR	10	1305		1336D	S09	E44	.724	17188	13.8	31D	-N		C	1310	70	1.0	E
GRP88472		10	1317+2	1332	1339D	N12	E13	.243	17187	11.5	22	-N				40	.4	E
	KHAR	10	1317E	1332	1339D	N14	E13	.258	17187	11.5	22D	-N		P	1322	50	.5	E
	HTPR	10	1319		1336D	N11	E13	.237	17187	11.5	17D	-N		C	1319	30	.3	
		10	1407	1411	NO FLARE PATROL													
		10	1423	1427	NO FLARE PATROL													
473	HOLL	10	1452	1454	1510	N11	W02	.090	17181	10.5	18	-F	2	C		91		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88474	10	1500	1513	1526	S10	E38	.658	17188	13.5	26	-N					
HOLL	10	1500	1513	1526	S09	E40	.678	17188	13.6	26	-N	2 C		67		
HOLL	10	1500	1513	1526	S11	E36	.640	17188	13.3	26	-N	2 C		67		
475 HOLL	10	1608	1619	1632	S04	E41	.672	17188	13.7	24	-F	2 C		38		
476 HOLL	10	1636	1641	1655	S09	W33	.591	17185	8.2	19	-F	2 C		19		
GRP88477	10	1636+1	1637+3	1652	N11	W02	.090	17181	10.5	16	-F			50	.5	
RAMY	10	1636	1640U	1640D	N11	W03	.098	17181	10.5	4D	-F	3 C		43		
HOLL	10	1637	1637	1652	N12	W02	.106	17181	10.5	15	-N	2 C		62		
478 HOLL	10	1702	1715	1735	S11	E39	.675	17188	13.6	33	-N	2 C		82		
GRP88479	10	1723+0	1723+0	1728	N10	W01	.068	17181	10.6	5	-F			40	.4	
HOLL	10	1723	1723	1727	N11	W02	.090	17181	10.6	4	-F	2 C		32		
RAMY	10	1723	1723	1729	N09	W01	.051	17181	10.6	6	-F	3 C		50		
480 HOLL	10	1841	1841	1859	N11	W02	.090	17181	10.6	18	-F	3 C		35		
481 PALE	10	1856	1857U	1859D	S11	E34	.615	17188	13.3	3D	-F	2 C		26		
482 HOLL	10	1904	1916	1938	N11	W03	.098	17181	10.6	34	-F	3 C		27		
GRP88483	10	1917	1922 1946	1948D	S08	E38	.649	17188	13.7	31	-B					
HOLL	10	1917	1946	1948D	S07	E39	.657	17188	13.7	31D	-B	3 C		157		
HOLL	10	1921	1922	1926	S09	E37	.641	17188	13.6	5	-N	3 C		25		
GRP88484	10	2039	2044+1	2050	S09	E36	.629	17188	13.6	11	-F					
HOLL	10	2039	2044	2047	S07	E38	.645	17188	13.7	8	-F	3 C		36		
HOLL	10	2045	2045	2050	S11	E35	.627	17188	13.5	5	-F	3 C		29		
GRP88485	10	2103+5	2106+4 2117	2139	S12	E33	.609	17188	13.4	36	-N			60	.7	F
HOLL	10	2103	2106	2143	S12	E32	.597	17188	13.3	40	-B	3 C		54		
PALE	10	2108E	2110U	2130D	S08	E36	.624	17188	13.6	22D	-F	3 C		80		
CULG	10	2108	2117	2134	S13	E33	.616	17188	13.4	26	1N	C	2117	280	3.4	F
GRP88486	10	2156E	2217 2229	2342	S09	E39	.666	17188	13.8	106	-N					FK
HOLL	10	2119	2217	2339	S09	E39	.666	17188	13.8	140	-N	3 C		140		
CULG	10	2156	2229	2345	S09	E39	.666	17188	13.8	109	1N	C	2229	160	2.2	KF
PALE	10	2329E	2342U	2342D	S10	E48	.772	17188	14.6	13D	-F	2 C		90		
GRP88487	10	2213+6	2219+2	2232	N11	W04	.108	17181	10.6	19	-F					
CULG	10	2213	2221U	2235U	N11	W05	.120	17181	10.6	22D	-N	C	2221	120	1.2	
HOLL	10	2219	2219	2229	N11	W04	.108	17181	10.6	10	-F	3 C		24		
488 CULG	10	2247	2249	2251	N10	W04	.095	17181	10.6	4	-F	C	2249	60	.6	
489 CULG	10	2255	2307	2315U	S05	W40	.662	17178	8.0	20D	-F	C	2307	120	1.4	
490 CULG	10	2325	2345	2359U	N11	W06	.132	17181	10.5	34D	-F	C	2345	180	1.8	F
491 CULG	10	2345	2348	2353	S06	W39	.653	17178	8.1	8	-F	C	2348	120	1.4	
492 CULG	11	0006	0007	0016	S12	E32	.597	17188	13.4	10	-N	C	0007	70	.8	
GRP88493	11	0025>9	0046+4	0109	S12	E32	.597	17188	13.4	44	-N					F
CULG	11	0025U	0046	0103D	S12	E30	.573	17188	13.3	38D	1N	P	0046	300	3.6	F
LEAR	11	0048	0050	0109	S12	E35	.633	17188	13.7	21	-N	3 C		67		
494 CULG	11	0032	0036	0041	N13	W04	.137	17181	10.7	9	-F	C	0036	80	.8	
GRP88495	11	0207+2	0209+0	0213	S13	E33	.615	17188	13.6	6	-F			60	.8	
CULG	11	0207	0209	0213	S14	E33	.622	17188	13.6	6	-N	C	0209	70	.8	
LEAR	11	0209	0209	0213	S12	E34	.621	17188	13.6	4	-F	3 C		46		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88496	11	0223>9	0233+2	0305	S12	E34	.621	17188	13.6	42	-N				150	1.9	D
LEAR	11	0223	0233	0309	S12	E34	.621	17188	13.6	46	-B	3	C		112		D
YUNN	11	0234	0235	0301	S12	E34	.621	17188	13.7	27	1F		C		193	2.6	
497 LEAR	11	0325	0326	0330	N15	W63	.886	17177	6.4	5	-F	3	C		18		
GRP88498	11	0339+7	0359>9	0442	S13	E32	.604	17188	13.6	63	2N				550	6.8	J
LEAR	11	0339	0359	0450	S13	E33	.615	17188	13.6	71	1B	3	C		415		
YUNN	11	0346	0403	0439	S14	E32	.610	17188	13.6	53	2N		C		546	7.1	
VORO	11	0357	0407	0441	S11	E32	.590	17188	13.6	44	2N		C	0407	717	9.1	EJ
CULG	11	0405E	0410U	0443D	S13	E30	.580	17188	13.4	38D	2B		P	0410	500	7.0	F
499 LEAR	11	0412	0413	0426	N16	E06	.199	17187	11.6	14	-N	3	C		48		
GRP88500	11	0453>9	0548+0 0618	0643	S13	E30	.580	17188	13.5	110	1N				200	2.4	FJ
LEAR	11	0453	0548	0639	S13	E30	.580	17188	13.5	106	-B	3	C		150		
ABST	11	0520	0548	0705	S13	E28	.556	17188	13.3	105	1F		C	0548	262	3.3	FJ
YUNN	11	0617	0618	0643	S14	E30	.587	17188	13.5	26	-N		C		96	1.2	
501 ABST	11	0548	0549	0608	N10	W09	.168	17181	10.6	20	-N		C	0549	87	.9	DV
502 LEAR	11	0716	0730	0734	N10	W14	.248	17181	10.3	18	-N	3	C		22		
GRP88503	11	0812+8	0813+4 0825	0829	S13	E27	.544	17188	13.4	17	1N				190	2.2	
YUNN	11	0812	0817	0824	S14	E28	.564	17188	13.4	12	-N		C		161	2.0	
KHAR	11	0813E	0813	0830D	S15	E20	.485	17188	12.8	17D	1F		P	0822	250	3.0	E
LEAR	11	0815	0816	0827	S13	E29	.568	17188	13.5	12	-B	3	C		74		D
CATA	11	0820	0825	0845D	S12	E27	.536	17188	13.4	25D	1F		P	0825	225	2.7	
GRP88504	11	0840+3	0845+3	0855	N12	W14	.259	17181	10.3	15	-N				110	1.1	L
KHAR	11	0830E	0848	0857D	N14	W14	.273	17181	10.3	27D	-N		P	0842	100	1.1	LT
CATA	11	0840	0845	0845D	N10	W15	.264	17181	10.2	5D	-F		P	0845	140	1.5	
LEAR	11	0842	0845	0852	N11	W14	.253	17181	10.3	10	-N	3	C		104		
YUNN	11	0843	0846	0852	N12	W12	.228	17181	10.5	9	-N		C		32	.4	
ATHN	11	0846E	0848	0902	N12	W13	.243	17181	10.4	16D	-N	2	S	0848	159	1.7	
GRP88505	11	0910+5	0920	0952D	N13	W13	.251	17181	10.4	42	-F						EL
KHAR	11	0910E		0952D	N14	W14	.273	17181	10.3	42D	-F		V	0914			ELT
CATA	11	0915	0920	0950D	N12	W15	.274	17181	10.3	35D	-F		P	0920	112	1.2	
KHAR	11	0924E		0943D	N14	W07	.181	17181	10.9	19D	-F		V	0924			ELT
506 KHAR	11	1006E	1006	1010D	N14	W14	.273	17181	10.4	4D	-F		V	1006			ELT
507 KHAR	11	1127E	1127	1136D	N14	E13	.259	17187	12.5	9D	-F		V	1127			HT
508 KHAR	11	1140E	1140	1145D	N18	W01	.206	17187	11.4	5D	-F		V	1140			D
GRP88509	11	1203E	1205 1210	1226	S10	E33	.597	17188	14.0	23	-N						
ATHN	11	1203E	1205	1226	S13	E34	.562	17188	14.1	23D	-N	3	S	1205	80	1.1	
ATHN	11	1208	1210	1218	S08	E32	.527	17188	13.9	10	-N	3	S	1210	96	1.2	
510 KHAR	11	1240E		1249D	S09	E35	.616	17188	14.2	9D	-F		P	1240	90	1.2	
511 KHAR	11	1240E	1240	1255D	S06	W50	.781	17178	7.8	15D	-N		P	1240	110	1.9	E
GRP88512	11	1305E	1305	1325D	S08	E34	.598	17188	14.1	20	-N						
KHAR	11	1305E	1305	1325D	S09	E35	.616	17188	14.2	20D	-N		P	1305	50	.6	
RAMY	11	1312E	1312U	1316D	S08	E34	.598	17188	14.1	4D	1N	3	C		237		
513 KHAR	11	1322E	1325	1332D	N11	W19	.332	17181	10.1	10D	-N		P	1332	100	1.1	E
	11	1401	1427	NO FLARE PATROL													
514 HOLL	11	1439	1448	1453	S07	E33	.580	17188	14.1	14	-F	3	C		38		
515 HOLL	11	1502	1536	1602	S13	E27	.544	17188	13.7	60	-N	3	C		62		
516 HOLL	11	1512	1515	1528	N05	W35	.571	17198	9.0	16	-F	3	C		28		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
517 HOLL	11	1656	1704	1725	S08	E32	.572	17188	14.1	29	-F	3	C		49		
GRP88518	11	1726>9	1745+3	1822	S08	E30	.546	17188	14.0	56	-B				150	1.8	
HOLL	11	1726	1748	1820	S08	E31	.559	17188	14.1	54	1B	3	C		208		
BIGB	11	1741	1745	1824	S09	E30	.552	17188	14.0	43	-B	2	C	1745	100	1.0	
519 HOLL	11	1804	1816	1851	N10	W17	.297	17181	10.5	47	-N	3	C		54		
520 HOLL	11	1810	1811	1817	N17	E05	.206	17187	12.1	7	-F	3	C		27		
521 HOLL	11	1927	1928	1933	N11	W16	.285	17181	10.6	6	-N	3	C		26		
522 HOLL	11	1941	1942	1954	S10	W52	.812	17178	7.9	13	-N	3	C		66		
523 HOLL	11	2016	2021	2034	N09	W21	.358	17181	10.3	18	-B	3	C		134		D
524 HOLL	11	2048	2049	2111	S08	E27	.506	17188	13.9	23	-N	3	C		29		
GRP88525	11	2218+1	2220+4	2238	N11	W24	.410	17181	10.1	20	-N				80	.9	
HOLL	11	2218	2224	2237	N10	W23	.392	17181	10.2	19	-N	3	C		56		
CULG	11	2219	2220D	2238	N12	W25	.428	17181	10.1	19	-N		P	2220	100	1.0	
526 HOLL	11	2240	2316	2326	S13	E20	.463	17188	13.4	46	-N	3	C		54		
GRP88527	11	2340+4	2346+2	2359	N10	W23	.392	17181	10.3	19	-N				110	1.2	
CULG	11	2340	2346U	0039D	N11	W24	.410	17181	10.2	59D	-N		P	2346	130	1.4	F
PALE	11	2344	2348	2355	N09	W22	.374	17181	10.3	11	-F	3	C		100		
LEAR	11	2344	2348	2359	N10	W23	.392	17181	10.3	15	-B	3	C		93		D
GRP88528	11	2357+0	0013	0056	S12	E18	.431	17188	13.3	59	1N				230	2.5	F
			2421														
LEAR	11	2357	2413	0056	S13	E20	.463	17188	13.5	59	-N	3	C		161		
CULG	11	2357	2421	0039D	S11	E16	.397	17188	13.2	42D	1N		P	2421	310	3.4	F
529 LEAR	11	2359	2403	0015	S08	W52	.807	17185	8.1	16	-F	3	C		28		
GRP88530	12	0138+2	0140+5	0154	S08	W57	.853	17178	7.8	16	-N						EHJ
MiTK	12	0138	0145	0154	S08	W57	.853	17178	7.8	16	1N		C		150		EH
VORO	12	0138	0145	0156	S08	W59	.870	17178	7.6	18	-F		C	0145	90	1.8	J
LEAR	12	0140	0140	0153	S09	W57	.855	17178	7.8	13	-N	3	C		36		
GRP88531	12	0151+3	0152	0216	N10	W23	.392	17181	10.4	25	-N				90	1.0	EHJW
			0202+4														
VORO	12	0151	0152	0158	N08	W26	.436	17181	10.1	7	-F	*	C	0152	45	.5	E
LEAR	12	0154	0206	0216	N10	W19	.329	17181	10.7	22	-N	*	C		90		
PURP	12	0154	0203	0218	N11	W24	.410	17181	10.3	24	1N	*	C				W
PURP	12	0158	0203	0205D	N12	W22	.383	17181	10.4	7D	1N	*	C				E
VORO	12	0159	0202	0206	N09	W27	.453	17181	10.1	7	-F	*	C	0202	90	1.0	HJ
GRP88532	12	0156+1	0157+2	0211	S13	E19	.452	17188	13.5	15	-N				100	1.1	EJ
MITK	12	0156	0157	0216D	S15	E22	.505	17188	13.7	20D	-N		C				E
YUNN	12	0156	0158	0158D	S14	E20	.473	17188	13.6	2D	-N		P		113	1.3	
PURP	12	0157E	0157	0205D	S13	E19	.452	17188	13.5	8D	1B		C				
PALE	12	0157	0158	0201D	S12	E19	.441	17188	13.5	4D	-F	3	C		100		
LEAR	12	0157	0159	0201D	S13	E18	.441	17188	13.4	4D	-B	3	C		97		D
VORO	12	0157	0158	0205	S12	E19	.441	17188	13.5	8	-N		C	0158	90	1.0	EJ
GRP88533	12	0302+0	0303+1	0308	S12	E17	.419	17188	13.4	6	-N				40	.4	
CULG	12	0241U	0248U	0342	S10	E23	.469	17188	13.8	61D	-N		P	0248	160	1.8	FT
VORO	12	0302	0304	0307	S12	E17	.419	17188	13.4	5	-F		C	0304	36	.4	D
LEAR	12	0302	0303	0308	S13	E17	.430	17188	13.4	6	-N	3	C		35		
GRP88534	12	0308+2	0310+1	0321	N10	W25	.423	17181	10.3	13	-N						EJ
VORO	12	0308	0310	0321	N09	W25	.422	17181	10.3	13	-F		C	0310	90	1.0	EJ
PURP	12	0310E	0310	0311D	N11	W26	.441	17181	10.2	1D	-N		P				E
535 CULG	12	0324E	0324U	0337D	N11	W25	.426	17181	10.3	13D	-N		P	0324	70	.8	
536 LEAR	12	0427	0432	0437	N09	W27	.453	17181	10.2	10	-N	3	C		24		
537 LEAR	12	0431	0433	0446	S09	W59	.872	17178	7.8	15	-B	3	C		62		

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									Hale						Area Measurement			
	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
538	LEAR	12	0435	0439	0454	S24	W24	.617	17189	10.4	19	-B	3	C		114		
539	CULG	12	0454	0454U	0455D	S11	E13	.366	17188	13.2	1D	-F		P	0454	40	.4	
540	PURP	12	0538	0540	0550	N12	W24	.413	17181	10.4	12	-N		C				D
541	MITK	12	0558E	0600	0607	N11	W29	.486	17181	10.1	9D	-N		C				DH
542	LEAR	12	0610	0611	0622	N16	W01	.173	17187	12.2	12	-N	3	C		40		
GRP88543		12	0709>9	0720+5	0743	N11	W29	.486	17181	10.1	34	1N				210	2.4	
	LEAR	12	0709	0723	0741	N09	W29	.483	17181	10.1	32	1B	3	C		232		
	YUNN	12	0713	0720	0725	N12	W30	.503	17181	10.1	12	1B		C		241	2.8	
	MANI	12	0721	0725	0730D	N11	W29	.486	17181	10.1	9D	1N	2	P		180	2.1	F
	KHAR	12	0722E		0732D	N09	W30	.498	17181	10.1	10D	1F		P	0722	210	2.5	
	ATHN	12	0724E	0725	0758	N13	W30	.505	17181	10.1	34D	1B	3	S	0725	190	2.2	
	BUCA	12	0730		0800	N11	W28	.471	17181	10.2	30	1N		C	0725	322	3.7	
	PURP	12	0739E	0739	0752	N11	W24	.410	17181	10.5	13D	-N		C				E
GRP88544		12	0724+1	0727+2	0736	S13	E17	.430	17188	13.6	12	-N				140	1.5	
	LEAR	12	0724	0727	0736	S14	E17	.442	17188	13.6	12	-B	3	C		117		
	MANI	12	0725	0729	0734	S12	E16	.408	17188	13.5	9	-N	2	P		110	1.2	F
	BUCA	12	0725		0800	S13	E17	.430	17188	13.6	35	1N		C	0730	215	2.4	
	KHAR	12	0728E	0728	0732D	S14	E18	.452	17188	13.7	4D	-F		P	0728	110	1.3	E
GRP88545		12	0740	0745	0820	S08	W59	.870	17185	7.9	40	-F						D
	BUCA	12	0740		0820	S08	W58	.862	17185	8.0	40	-N		C	0810	43	.5	D
	KHAR	12	0742E	0745	0811D	S09	W59	.872	17185	7.9	29D	-F		P	0745	90	1.9	
	KHAR	12	0813E	0813	0818D	S06	W62	.891	17185	7.7	5D	-F		P	0816			B
546	BUCA	12	0814		0840	N16	W01	.173	17187	12.3	26	-N		C	0820	43	.4	D
GRP88547		12	0825+9	0828	0855	N11	W27	.456	17181	10.3	30	-N						HI
				0840														
	KHAR	12	0825E	0828	0847D	N11	W26	.441	17181	10.4	22D	-N		P	0830	130	1.3	HIT
	YUNN	12	0834	0840	0855	N12	W28	.473	17181	10.3	21	1N		C		274	3.2	
548	KHAR	12	0901E		0905D	S09	W59	.872	17178	8.0	4D	-F		P	0901	40	.8	D
549	KHAR	12	0914E	0914	0917D	N12	W32	.532	17181	10.0	3D	-F		P	0914			DH
GRP88550		12	0927	0932+0	0941	S13	E13	.392	17188	13.4	14	-F				120	1.3	E
	LEAR	12	0927	0932	0941	S13	E13	.392	17188	13.4	14	-N	3	C		164		
	KHAR	12	0929E	0932	0940D	S13	E13	.392	17188	13.4	11D	-F		P	0932	80	.9	E
551	KHAR	12	0930E	0930	0934D	N12	W32	.532	17181	10.0	4D	-F		P	0932	60	.7	DH
GRP88552		12	0932+4	0940+0	0946D	S23	E33	.688	17199	14.9	14	?F						EH
	KHAR	12	0932E	0940	1036D	S25	E35	.721	17199	15.0	64D	?F		P	0949	370	5.4	EH
				IMP.2 IMP.S														
	LEAR	12	0936	0940	0946	S22	E32	.670	17199	14.8	10	-F	2	C		150		
553	KHAR	12	0941E	0941	0947D	S06	W63	.899	17178	7.7	6D	-F		P	0941			D
554	KHAR	12	0953E	0955	1007D	S14	E90	1.000		19.2	14D	-F		P	0955			H
555	KHAR	12	0955E	0956	1014D	S06	W63	.899	17178	7.7	19D	-N		P	0956			EH
556	KHAR	12	0955E	0956	0959D	N14	W08	.193	17187	11.8	4D	-F		V	0956			D
557	KHAR	12	1023E	1023	1030D	S13	E14	.401	17188	13.5	7D	-F		P	1023	80	.9	
558	KHAR	12	1026E	1028	1041D	N12	W33	.546	17181	10.0	15D	-F		V	1028			H
559	KHAR	12	1042E	1042	1049D	N16	W04	.185	17187	12.1	7D	-F		P	1042			
560	KHAR	12	1043E	1043	1058D	N06	E83	.991	17201	18.7	15D	-F		V	1043			
561	KHAR	12	1049E	1055	1118D	N19	W36	.606		9.8	29D	-F	*	P	1055			D
562	KHAR	12	1055E	1055	1102D	S14	E14	.414	17188	13.5	7D	-F		V	1055			DH

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Time (UT)	Measurement Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88563	12	1117+0	1118+1	1125	N11	W33	.544	17181	10.0	8	-N						EHI
LVOV	12	1117	1118	1125	N11	W32	.530	17181	10.1	8	1F	*	C	1118	250	3.1	E
KHAR	12	1117E	1119	1125D	N12	W34	.560	17181	9.9	8D	-N	*	P	1119			HI
564 KHAR	12	1135E	1135	1144D	S14	E14	.414	17188	13.5	9D	-F		V	1135			
565 KHAR	12	1147E	1148	1154D	N16	W05	.192	17187	12.1	7D	-B		V	1147	40	.4	E
566 KHAR	12	1339E	1343	1353D	N11	W30	.501	17181	10.3	14D	-F		P	1343	70	.8	E
567 RAMY	12	1353	1357	1400	S14	E11	.389	17188	13.4	7	-F	3	C		34		
568 RAMY	12	1420	1455	1513	N09	W33	.542	17181	10.1	53	-N	3	C		74		
GRP88569	12	1429	1431	1502	N15	W19	.353	17187	11.2	33	-N						
RAMY	12	1429	1431	1502	N16	W19	.360	17187	11.2	33	-N	3	C		38		
HOLL	12	1441E	1441U	1501	N15	W19	.353	17187	11.2	20D	-F	3	C		52		
GRP88570	12	1446+4	1450+1	1513	S10	E21	.445	17188	14.2	27	-F				40	.4	
RAMY	12	1446	1450	1502	S08	E20	.414	17188	14.1	16	-F	3	C		40		
HOLL	12	1450	1451	1523	S12	E22	.476	17188	14.3	33	-F	3	C		40		
GRP88571	12	1519+0	1521+2	1540	N15	W07	.195	17187	12.1	21	-B				140	1.4	D
RAMY	12	1519	1522	1536	N16	W07	.209	17187	12.1	17	-B	3	C		177		
HOLL	12	1519	1523	1540	N15	W07	.195	17187	12.1	21	-B	3	C		138		D
BIGB	12	1521E	1521U	1542	N15	W06	.185	17187	12.2	21D	-B	1	P	1521	100	1.0	
GRP88572	12	1553+1	1554+0	1612	S12	E11	.361	17188	13.5	19	-N				100	1.1	
RAMY	12	1553	1554	1612	S12	E12	.369	17188	13.6	19	-N	3	C		126		
HOLL	12	1554	1554	1612	S13	E11	.375	17188	13.5	18	-N	3	C		68		
573 HOLL	12	1728	1804	1832	N10	W32	.529	17181	10.3	64	-N	3	C		62		
574 PALE	12	1821	1821	1827	S10	E10	.324	17188	13.5	6	-F	2	C		39		
575 HOLL	12	1845	1907	1913	N09	W31	.513	17181	10.5	28	-N	3	C		39		
576 PALE	12	1900	1903	1907	S10	E10	.324	17188	13.5	7	-F	2	C		41		
577 HOLL	12	1916	1917	1952	N09	W31	.513	17181	10.5	36	-N	3	C		36		
GRP88578	12	2041+1	2042+1	2051	N10	W29	.484	17181	10.7	10	-N				60	.7	
CULG	12	2041E	2042	2055	N11	W28	.471	17181	10.8	14D	-N		C	2042	90	1.1	
HOLL	12	2042	2043	2051	N09	W32	.528	17181	10.5	9	-N	3	C		52		
PALE	12	2042	2042	2047	N10	W29	.484	17181	10.7	5	-F	2	C		53		
579 CULG	12	2112	2114	2145	N11	W18	.317	17187	11.5	33	-N		C	2114	80	.8	H
580 CULG	12	2123U	2145	2210D	N11	W35	.573	17181	10.3	47D	?F		P	2145	320	3.9	F
			IMP.1 NO : HOLL BIGB PALE														
GRP88581	12	2134>9	2154+2	2208	S10	E08	.308	17188	13.5	34	-N						F
CULG	12	2134	2156	2210D	S10	E08	.308	17188	13.5	36D	1N		C	2156	260	2.6	F
HOLL	12	2152	2154	2206	S11	E08	.323	17188	13.5	14	-N	3	C		34		
582 CULG	12	2204	2208	2210D	S06	W70	.945	17178	7.7	6D	?N		P	2208	90		
			IMP.1 NO : HOLL BIGB PALE														
GRP88583	12	2256+3	2259 2331+2	2335	N11	W38	.614	17181	10.1	39	-F				50	.6	
PALE	12	2256	2259	2302	N07	W36	.585	17181	10.3	6	-F	3	C		41		
LEAR	12	2259	2331	2347	N11	W38	.614	17181	10.1	48	-N	3	C		60		
CULG	12	2331E	2333U	2335D	N12	W41	.654	17181	9.9	4D	-F		P	2333	40	.5	
584 LEAR	13	0005	0007	0010	N06	W55	.816	17198	8.9	5	-F	3	C		20		
585 PALE	13	0006	0009	0013	S11	E05	.305	17188	13.4	7	-F	3	C		32		
586 LEAR	13	0021	0021	0028	S08	W71	.952	17178	7.7	7	-F	3	C				
587 YUNN	13	0023	0025	0100	N30	W86	.994		6.6	37	-N		C		48		A

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	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp		Obs Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
588	CULG	13	0038E	0038U	0038D	N15	W17	.325	17187	11.8		-F		P	0038	30	.3	
GRP88589		13	0115	0119	0148	N10	W38	.613	17181	10.2	33	1F						W
				0126														
	PURP	13	0115	0119	0141	N10	W39	.627	17181	10.1	26	1F		C				W
	CULG	13	0116E	0126	0154	N11	W38	.614	17181	10.2	38D	1N		P	0126	230	2.9	
88590		13	0118>9	0128+7	0140	S12	E05	.321	17188	13.4	22	-N				80	.8	
	LEAR	13	0118	0132	0140	S10	E07	.300	17188	13.6	22	-N	3	C		80		
	CULG	13	0127	0128U	0137D	S12	E04	.317	17188	13.4	10D	-N		P	0128	90	.9	
	PURP	13	0130	0135	0139	S12	E05	.321	17188	13.4	9	-N		C				
591	LEAR	13	0150	0150	0154	N07	E74	.959	17201	18.6	4	-F	3	C				
592	LEAR	13	0220	0221	0226	N05	W54	.806	17198	9.0	6	-F	3	C		35		
593	YUNN	13	0235E	0235	0240	N12	W40	.642	17181	10.1	5D	-N		P		113	1.7	
594	PURP	13	0249E	0250	0254	S12	E04	.317	17188	13.4	5D	-N		C				F
595	LEAR	13	0301	0301	0307	S10	E06	.294	17188	13.6	6	-F	3	C		29		
GRP88596		13	0311+4	0313	0330	N10	W40	.640	17181	10.1	19	-N						E
				0318+6														
	PURP	13	0311	0313	0330	N10	W49	.751	17181	9.5	19	1F		C				
	PALE	13	0312	0324	0326	N07	W39	.626	17181	10.2	14	-F	2	C		26		
	YUNN	13	0315	0323	0340	N11	W40	.641	17181	10.1	25	1N		C		209	2.7	
	PEKG	13	0316E	0318	0322D	N10	W40	.640	17181	10.1	6D	-N		P	0318	59	.8	E
GRP88597		13	0407+7	0330	0434	S12	E03	.314	17188	13.4	27	2N				500	5.2	F
				0415+2														
	PEKG	13	0330E	0330U	0440	S12	E03	.314	17188	13.4	280	2N		P		484	5.3	F
	LEAR	13	0407	0417	0456	S13	E03	.330	17188	13.4	49	2B	3	C		594		
	PURP	13	0411E		0429	S12	E03	.314	17188	13.4	18D	1N		V				
	YUNN	13	0414	0415	0425	S13	E04	.333	17188	13.5	11	2N		C		514	5.6	
	CULG	13	0416U	0417	0434	S12	E04	.317	17188	13.5	18D	1B		P	0417	390	4.3	
598	CULG	13	0530E	0530U	0532D	N12	W39	.629	17181	10.3	2D	-F		P	0530	40	.5	
599	PURP	13	0545	0545	0606	N11	W37	.600	17181	10.5	21	-N		P				E
600	PEKG	13	0606	0609	0616	N26	W89	.998		6.6	10	-N		C	0609	42		D
GRP88601		13	0611+7	0617+4	0634	N16	W15	.305	17187	12.1	23	1B				320	3.4	EH
	PEKG	13	0611	0619	0630	N16	W15	.305	17187	12.1	19	1B		C	0619	420	4.6	EH
	YUNN	13	0615	0617	0645	N17	W15	.314	17187	12.1	30	1N		C		290	3.2	
	LEAR	13	0616	0621	0636	N15	W14	.283	17187	12.2	20	1B	3	C		362		
	PURP	13	0617	0618	0628	N17	W15	.314	17187	12.1	11	1B		C				
	ATHN	13	0618	0621	0636	N14	W16	.303	17187	12.1	18	-B	3	S	0621	102	1.1	
GRP88602		13	0728+5	0741	0748	N26	W90	.999		6.6	20	-B						AD
	PEKG	13	0728	0741	0748	N27	W91	.999		6.5	20	1B		C	0741	67		AD
	ISTA	13	0733		0748	N25	W90	.999		6.6	15	-N						AD
GRP88603		13	0750+5	0750+6	0830	N12	W41	.655	17181	10.3	40	-B				120	1.6	KL
				0817														
	LEAR	13	0719E	0752	0932	N12	W37	.602	17181	10.5	133D	-B	*	C		169		
	PEKG	13	0750E	0750	0755	N11	W40	.641	17181	10.3	5D	1N	*	C				
	ATHN	13	0755	0756	0801D	N14	W42	.670	17181	10.2	6D	-B	*	S	0756	80	1.1	
	PEKG	13	0802	0817	0827	N11	W40	.641	17181	10.3	25	1N	*	C	0817	357	4.8	FK
	KHAR	13	0807E		0830D	N13	W44	.693	17181	10.0	23D	-N	*	P	0808	100	1.4	ELT
GRP88604		13	0830	0830+6	0854	N10	W38	.613	17181	10.5	24	?N						FJ
	CATA	13	0830	0830	0850	N08	W37	.599	17181	10.6	20	?F	*	C	0830	112	1.4	
				IMP.S	IMP.2													
	ABST	13	0831E	0836	0857D	N13	W40	.643	17181	10.4	26D	2N	*	P	0836	436	5.9	FJ
GRP88605		13	0855	0900	0910	N09	W39	.626	17181	10.4	15	-F						D
	CATA	13	0855	0900	0905	N09	W37	.599	17181	10.6	10	-F	*	C	0900	84	1.1	
	KHAR	13	0905E		0914D	N10	W42	.666	17181	10.2	9D	-F	*	V	0905			DT

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
606 KHAR	13	0859E	0859	0904D	N06	E60	.863	17201	17.9	5D	-F		V	0859			H
GRP88607	13	0935+8	0935	1025D	N12	W40	.642	17181	10.4	50	1N						EOQ
			0945+2														
CATA	13	0935	0935	1005D	N12	W40	.642	17181	10.4	30D	1F		P	0935	309	4.2	
LEAR	13	0941	0947	0951D	N12	W41	.655	17181	10.3	10D	1B	2	C		303		
KHAR	13	0943	0945	1025D	N12	W40	.642	17181	10.4	42D	1N		P	0945			EOQT
608 KHAR	13	0951	0952	1013D	S07	E08	.264	17188	14.0	22D	-F		P	0952			D
609 KHAR	13	1030E		1038D	N28	W85	.992		7.1	8D	-F		V	1033			D
610 KHAR	13	1046E	1046	1052D	N12	W49	.751	17181	9.8	6D	-F		V	1046			DT
GRP88611	13	1151+4	1152	1207D	N12	W39	.629	17181	10.6	16	-F						D
			1200														
KHAR	13	1151E	1152	1207D	N13	W39	.630	17181	10.6	16D	-F		V	1152			DT
CATA	13	1155	1200	1205D	N12	W40	.642	17181	10.5	10D	1F		P	1200	197	2.6	
612 KHAR	13	1204E	1207	1213D	N28	W90	.999		6.8	9D	-N		V	1207			
613 HOLL	13	1443	1447	1509	N09	W42	.666	17181	10.5	26	-N	3	C		34		
614 HOLL	13	1504	1517	1536	S09	E04	.268	17188	13.9	32	-N	3	C		77		
615 HOLL	13	1514	1521	1523	N09	W42	.666	17181	10.5	9	-F	3	C		20		
616 PALE	13	1926	1956	2012	S08	W01	.243	17188	13.7	46	-N	3	C		68		D
GRP88617	13	1956+1	2000+0	2014	N07	E55	.815	17201	18.0	18	-B				110	1.9	D
PALE	13	1956	2000	2012	N08	E56	.825	17201	18.0	16	1N	3	C		141		D
BIGB	13	1957	2000	2015	N06	E55	.816	17201	18.0	18	-B	1	C	2000	80	1.4	
GRP88618	13	2018+1	2034+1	2106	N15	W23	.412	17187	12.1	48	1N				190	2.1	D
PALE	13	2018	2034	2103	N15	W23	.412	17187	12.1	45	1N	3	C		213		D
BIGB	13	2019	2035	2106	N15	W22	.397	17187	12.2	47	-N	2	C	2035	140	1.6	
HOLL	13	2040E	2040U	2108	N14	W24	.421	17187	12.1	28D	1N	3	C		227		
619 HOLL	13	2138	2138	2144	N09	W44	.691	17181	10.6	6	-B	3	C		27		
GRP88620	13	2145E	2145	2253	S08	E01	.243	17188	14.0	68	1B				210	2.2	F
			2216+4														
HOLL	13	2040E	2216	2258	S10	E01	.277	17188	13.9	138D	1B	*	C		229		
CULG	13	2145E	2145E	2200U	S08	W04	.252	17188	13.6	15D	1N	*	P	2145	420	4.4	F
CULG	13	2213	2219	2235	S08	E01	.243	17188	14.0	22	1N	*	C	2219	270	2.8	
BIGB	13	2215	2220	2253	S08	E01	.243	17188	14.0	38	-B	*	C	2220	130	1.3	
GRP88621	13	2154	2204+5	2223	N16	W33	.557	17187	11.4	29	-F				80	1.0	
HOLL	13	2154	2204	2226	N15	W34	.567	17187	11.4	32	-F	3	C		99		
CULG	13	2203U	2209	2220	N18	W33	.564	17187	11.4	17D	-N		P	2209	60	.7	
622 CULG	13	2210U	2210U	2220U	N12	W48	.740	17181	10.3	10D	-F		P	2210	20	.3	
GRP88623	13	2239+8	2249+0	2255	N11	W48	.739	17181	10.3	16	-N				40	.6	
HOLL	13	2239	2249	2257	N09	W46	.715	17181	10.5	18	-B	3	C		40		
CULG	13	2247	2249	2253	N14	W50	.764	17181	10.2	6	-F		C	2249	40	.6	T
GRP88624	13	2322+4	2329+2	2345	N12	W24	.414	17187	12.2	23	-N				60	.7	E
CULG	13	2307	2319	2350	N14	W21	.377	17187	12.4	43	-N	*	C	2319	80	.9	
HOLL	13	2322	2331	2348D	N11	W24	.411	17187	12.2	26D	-N	*	C		60		
VORO	13	2326	2329	2341	N13	W25	.432	17187	12.1	15	-F	*	C	2329	54	.6	E
PEKG	13	2326	2330	2335	N12	W24	.414	17187	12.2	9	-N	*	C	2330	63	.7	E
GRP88625	13	2317+5	2322+1	2331	N10	W46	.716	17181	10.5	14	-B				30	.4	
HOLL	13	2317	2322	2326D	N09	W46	.715	17181	10.5	9D	-B	3	C		33		
LEAR	13	2322	2323	2331	N11	W47	.728	17181	10.4	9	-B	3	C		25		
GRP88626	13	2332+0	2333	2348	S08	W04	.252	17188	13.7	16	-N				35	.4	E
PEKG	13	2332E	2332	2332D	S08	W05	.257	17188	13.6		-N		C		42	.4	E
HOLL	13	2332	2333	2348	S08	W04	.252	17188	13.7	16	-N	3	C		25		

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	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
627	LEAR	13	2336	2338	2347	N07	E61	.871	17201	18.6	11	-F	3	C		22		
GRP88628		13	2345+0	2350+1	0001	N10	W51	.773	17181	10.2	16	1N				160	2.6	E
	VORO	13	2345	2350	0001	N10	W55	.815	17181	9.9	16	1N		C	2350	161	2.3	E
	PEKG	13	2345	2351	0000	N11	W48	.739	17181	10.4	15	1N		C	2351	168	2.6	E
GRP88629		13	2356+3	2358+3	0007	N13	W25	.432	17187	12.1	11	-N				110	1.2	E
	CULG	13	2356	2358	0007	N14	W21	.377	17187	12.4	11	-B		C	2358	120	1.3	
	LEAR	13	2357	2401	0013	N14	W30	.508	17187	11.7	16	-B	3	C		134		
	VORO	13	2359	2401	0006	N13	W25	.432	17187	12.1	7	-F		C	2401	90	1.0	E
	PALE	13	2359	2400	0005	N11	W25	.426	17187	12.1	6	-F	3	C		68		
GRP88630		14	0008+3	0012+2	0024	N07	E53	.795	17201	18.0	16	-B				80	1.3	E
	LEAR	14	0008	0013	0027	N07	E71	.943	17201	19.3	19	-B	3	C		94		
	VORO	14	0009	0013	0022	N07	E52	.784	17201	17.9	13	-N		C	0013	63	1.0	E
	CULG	14	0010	0014	0032	N07	E53	.795	17201	18.0	22	-B		C	0014	80	1.4	
	PEKG	14	0011	0013	0021	N06	E53	.795	17201	18.0	10	-B		C	0013	84	1.4	E
	PURP	14	0011E	0012	0023	N05	E53	.796	17201	18.0	12D	-B		C				E
	PALE	14	0011	0012	0022	N08	E53	.795	17201	18.0	11	-N	3	C		71		
631	MANI	14	0013E	0014U	0016D	N11	W48	.740	17181	10.4	3D	-N	1	V		25	.4	F
GRP88632		14	0025+8	0035+2	0044	N12	W48	.740	17181	10.4	19	-N				110	1.7	
	LEAR	14	0025	0035	0045	N12	W47	.728	17181	10.5	20	-B	3	C		86		
	CULG	14	0033	0037	0043	N12	W50	.763	17181	10.3	10	-N		C	0037	130	1.9	
GRP88633		14	0045>9	0056+1	0101	N11	W51	.773	17181	10.2	16	-B						E
	LEAR	14	0045	0057	0059	N12	W47	.728	17181	10.5	14	-B	3	C		50		
	CULG	14	0052	0056	0110	N11	W54	.805	17181	10.0	18	1N		C	0056	160	2.7	
	VORO	14	0054	0057	0102	N10	W55	.815	17181	9.9	8	1N		C	0051	224	3.2	E
	MANI	14	0056E	0056U	0059D	N11	W49	.751	17181	10.4	3D	-B	1	V		70	1.1	
	PEKG	14	0056	0057	0100	N11	W49	.751	17181	10.4	4	-B		P	0057	101	1.6	E
88634		14	0113>9	0117 0123+8	0142	S11	W11	.345	17188	13.2	29	-N						
	CULG	14	0113	0117	0136	S10	W11	.331	17188	13.2	23	-N		C	0117	70	.7	
	PURP	14	0120	0126	0137	S10	W11	.331	17188	13.2	17	-N		C				
	VORO	14	0120	0125	0140	S11	W12	.354	17188	13.2	20	-N		C	0125	99	1.1	D
	PEKG	14	0122	0131	0153	S11	W11	.345	17188	13.2	31	-F		C	0131	38	.4	E
	LEAR	14	0123	0123	0149	S11	W10	.337	17188	13.3	26	-N	3	C		30		
GRP88635		14	0238+0	0238+1	0241	N10	W55	.815	17181	10.0	3	-B						
	PURP	14	0238	0239	0241	N11	W55	.815	17181	10.0	3	1N		C				
	LEAR	14	0238	0238	0241	N10	W55	.815	17181	10.0	3	-B	3	C		26		
GRP88636		14	0244+4	0248+4	0301	N13	W27	.462	17187	12.1	17	-N				110	1.2	E
	LEAR	14	0244	0252	0306	N12	W26	.444	17187	12.2	22	-B	3	C		127		
	PURP	14	0245	0248	0258	N13	W27	.462	17187	12.1	13	-N		C				
	YUNN	14	0247	0248	0248D	N14	W26	.451	17187	12.2	1D	-N		P		96	1.1	
	PEKG	14	0248	0252	0301	N13	W27	.462	17187	12.1	13	-N		C	0252	139	1.6	E
	VORO	14	0248E		0301	N12	W27	.459	17187	12.1	13D	-F		P	0250	54	.6	E
637	PURP	14	0247	0248	0256	S07	W09	.272	17188	13.4	9	*-F		C				D
88638		14	0430+4	0434+1 0445	0448	S12	W11	.359	17188	13.4	18	-N				110	1.2	E
	CULG	14	0430E	0434	0444	S12	W19	.439	17188	12.8	14D	-N		P	0434	100	1.0	
	LEAR	14	0433	0445	0450	S10	W08	.306	17188	13.6	17	-N	3	C		49		
	PEKG	14	0434	0435	0450	S13	W12	.381	17188	13.3	16	-N		P	0435	126	1.4	E
	PURP	14	0438E	0438	0446	S12	W10	.351	17188	13.4	8D	-F		P				E
639	PEKG	14	0435E	0435	0435D	S24	W49	.833	17189	10.5		-N		P	0435	50	.9	D
640	LEAR	14	0456	0456	0500	N11	W49	.751	17181	10.5	4	-N	3	C		35		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88641	14	0541+3	0608+9	0738	S07	W06	.247	17188	13.8	117	3B						FIJK
			0629+2														
CULG	14	0541	0617	0730	S05	W07	.225	17188	13.7	109	2B		C	0617	1000	10.4	VFT
LEAR	14	0542	0613	0734	S09	W07	.284	17188	13.7	112	3B	3	C		1941		D
PEKG	14	0544	0615	0720	S08	W06	.262	17188	13.8	96	3B		C	0615	2229	23.8	FK
PEKG	14	0544	0631	0720	S08	W06	.262	17188	13.8	391D	2B		C	0631	854	8.8	FU
KODA	14	0558	0608	0643	S06	W05	.224	17188	13.9	45	4B		P	0616	2428	25.0	CEI
ATHN	14	0610	0613	0721	S10	W06	.293	17188	13.8	71	1B	3	S	0613	318	3.4	
ISTA	14	0625E		0725	S05	W05	.209	17188	13.9	60D	2B						F
MANI	14	0629E	0629U	0749D	S08	W07	.269	17188	13.7	80D	2B	2	P		1100	11.1	ZE
ABST	14	0640E	0645	0905	S07	W07	.254	17188	13.8	145D	2N		P	0645	698	7.3	FJ
PURP	14	0659E		0805	S06	W04	.218	17188	14.0	66D	1N		P				F
HTPR	14	0707E		0741D	S10	W06	.293	17188	13.8	34D	2N		C	0709	500	5.0	EI
CATA	14	0735E	0735	0755D	S06	W03	.052	17188	14.1	20D	1F		P	0735	197	2.1	
642 LEAR	14	0551	0554	0559	N12	W49	.751	17181	10.6	8	-B	3	C		21		
GRP88643	14	0626+2	0629+2	0638	N10	W58	.844	17181	9.9	12	1N				120	2.3	D
CULG	14	0626	0629	0639	N11	W54	.805	17181	10.2	13	1N		C	0629	120	2.0	
ISTA	14	0626		0636	N09	W59	.853	17181	9.8	10	-N						D
PEKG	14	0628	0631	0635	N09	W58	.844	17181	9.9	7	1B		C	0631	168	3.3	D
LEAR	14	0628	0631	0639	N09	W58	.844	17181	9.9	11	-B	3	C		98		
MANI	14	0629E	0631	0633D	N11	W59	.853	17181	9.8	4D	-N	2	P		80	1.5	
644 LEAR	14	0654	0658	0702	N06	E49	.751	17201	18.0	8	-F	3	C		43		
645 HTPR	14	0707E		0738D	N15	W29	.498	17187	12.1	31D	-F		C	0730	50	.6	E
GRP88646	14	0802+6	0809+1	0816D	N13	W52	.785	17181	10.4	14	1F				160	2.6	EJ
ABST	14	0802	0809	0850	N14	W50	.764	17181	10.6	48	1F		C	0809	218	3.4	EJ
PEKG	14	0808	0810	0816	N12	W54	.805	17181	10.3	8	-N		C	0810	114	2.0	E
GRP88647	14	0823>9	0837+3	1003	S06	W06	.231	17188	13.9	100	1N						ELO
			0905														
BUCA	14	0823E	0837	1003	S06	W08	.248	17188	13.7	100D	2N	*	C	0837	644	6.8	E
CATA	14	0835	0905	1000	S04	W04	.077	17188	14.1	85	-F	*	C	0905	56	.6	
PURP	14	0838E	0840	0840D	S07	W04	.234	17188	14.1	2D	-N	*	P				E
KHAR	14	0843E	0843	1005D	S10	W09	.314	17188	13.7	82D	1F	*	P	0909	200	2.2	ELO
648 BUCA	14	0845	0847	0905	S07	W25	.471	17188	12.5	20	*-N	*	C	0847	32	.4	D
GRP88649	14	0940+7	0940+9	0955	N14	W30	.509	17187	12.2	15	-N						DH
CATA	14	0940	0940	0955	N13	W31	.520	17187	12.1	15	-F		C	0940	56	.7	
KHAR	14	0943	0944	0954	N15	W27	.470	17187	12.4	11	-B		P	0944			DH
BUCA	14	0947	0949	0955	N14	W30	.509	17187	12.2	8	-N		C	0949	54	.6	D
GRP88650	14	1008E	1008	1012D	S10	W14	.362	17188	13.4	4	-N						
			1012														
KHAR	14	1008E	1008	1011D	S13	W15	.409	17188	13.3	3D	-F		V	1008			D
KHAR	14	1010E	1012	1012D	S08	W14	.338	17188	13.4	2D	-N		V	1012			D
GRP88651	14	1047		1120D	N12	W58	.844	17181	10.1	33	-N						EH
BUCA	14	1047		1120D	N13	W53	.795	17181	10.5	33D	1N		C	1100	161	2.7	E
KHAR	14	1050E	1050	1120D	N12	W63	.886	17181	9.7	30D	-F		V	1050			H
652 KHAR	14	1126E	1126	1132D	S09	W16	.372	17188	13.3	6D	-F		V	1126			DL
653 KHAR	14	1135E	1136	1152D	N15	W28	.484	17187	12.4	17D	-F		V	1136			DH
654 KHAR	14	1238E	1238	1248D	N12	W66	.909	17181	9.6	10D	-N		V				
655 KHAR	14	1321E	1325	1328D	S09	W09	.300	17188	13.9	7D	-F		P				E
656 HOLL	14	1401	1401	1405D	N09	W46	.715	17187	11.1	4D	-B	3	C		80		D
657 HOLL	14	1630	1637	1710	N09	W57	.834	17181	10.4	40	-N	3	C		39		
658 HOLL	14	1631	1639	1700	S08	W15	.350	17188	13.6	29	-F	3	C		44		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88659	14	1727	1732	1919	N09	W57	.834	17181	10.5	112	-N						
			1811														
HOLL	14	1727	1732	1931D	N09	W58	.844	17181	10.4	124D	-N	3	C		48		
PALE	14	1802E	1811	1833	N09	W58	.844	17181	10.4	31D	1N	3	C		273		
PALE	14	1858	1859	1907	N11	W56	.825	17181	10.6	9	-F	3	C		26		
	14	2050	2204	NO FLARE PATROL													
660 CULG	14	2308	2309	2311	S12	W12	.368	17188	14.1	3	-F		C	2309	30	.3	
661 HOLL	14	2322	2331	2348D	N11	W24	.411		13.2	26D	-N	3	C		60		
GRP88662	14	2336>9	0004+3	0039	S08	W20	.412	17188	13.5	63	-N						
CULG	14	2336	2407	0040	S09	W20	.421	17188	13.5	64	-N		C	2407	70	.8	F
MITK	14	2353	2404	0037	S07	W20	.403	17188	13.5	44	-N		C				E
663 LEAR	15	0039	0042	0050	S26	W61	.921	17189	10.5	11	-F	3	C		32		
GRP88664	15	0054+8	0110	0148	S07	W22	.430	17188	13.4	54	-N						
			0118														
CULG	15	0054	0110	0200	S07	W23	.443	17188	13.3	66	-N		C	0110	100	1.1	F
MITK	15	0102	0118	0136	S07	W21	.416	17188	13.5	34	-N		C				E
665 CULG	15	0100	0102	0106	N11	W69	.929	17181	9.9	6	-N		C	0102	30	.7	
666 CULG	15	0108	0114	0138	N25	E58	.853	17205	19.4	30	?F		C	0114	120	2.2	
			IMP.1 NO : LEAR MITK PURP VORO														
GRP88667	15	0118>9	0132+0	0137	S25	W61	.919	17189	10.5	19	-F				20	.5	
LEAR	15	0118	0132	0140	S26	W62	.927	17189	10.4	22	-F	3	C		31		
CULG	15	0128	0132	0134	S25	W61	.919	17189	10.5	6	-N		C	0132	10	.2	
668 CULG	15	0120	0126	0140	S08	W35	.610	17188	12.4	20	-F	*	C	0126	40	.5	
GRP88669	15	0127+8	0134+2	0144	N12	W61	.870	17181	10.5	17	-N				50	1.0	D
LEAR	15	0127	0134	0144	N12	W61	.870	17181	10.5	17	-N	3	C		43		
CULG	15	0131	0134	0148	N13	W62	.878	17181	10.4	17	-N		C	0134	60	1.1	
VORO	15	0133	0136	0141	N12	W62	.878	17181	10.4	8	-F		C	0136	63		D
YUNN	15	0135	0136	0144	N14	W60	.862	17181	10.6	9	-N		C		48	1.0	
GRP88670	15	0226+4	0231+5	0246	S12	W22	.473	17188	13.5	20	-N				130	1.5	EJ
CULG	15	0226	0236	0256	S12	W23	.485	17188	13.4	30	-N		C	0236	130	1.5	F
PEKG	15	0230	0235	0241	S12	W23	.485	17188	13.4	11	-N		C	0235	109	1.3	E
PURP	15	0230E	0231	0243	S13	W24	.506	17188	13.3	13D	1N		C				
VORO	15	0230	0232	0247	S13	W23	.495	17188	13.4	17	-F		C	0232	179	2.0	EJ
LEAR	15	0230	0231	0249	S10	W20	.430	17188	13.6	19	-N	3	C		113		
MITK	15	0230	0233	0246	S12	W20	.450	17188	13.6	16	-F		C				E
GRP88671	15	0305+0	0307+4	0319	N16	E53	.797	17204	19.1	14	-N						E
PURP	15	0305	0307	0316	N20	E55	.821	17204	19.3	11	1N		C				
PEKG	15	0305	0311	0321	N13	E51	.774	17204	19.0	16	-N		C	0311	126	2.0	E
672 PURP	15	0322	0323	0332	S29	E27	.688	17202	17.2	10	?N		C				F
			IMP.1 NO : CULG LEAR PEKG MITK														
673 LEAR	15	0322	0328	0334	N12	W62	.878	17181	10.5	12	-F	3	C		35		
GRP88674	15	0328+0	0329+3	0340	S05	W37	.623	17188	12.4	12	-N						
PURP	15	0328	0329	0337	S03	W38	.629	17188	12.3	9	1N		C				
CULG	15	0328	0332	0342	S08	W37	.635	17188	12.4	14	-F		C	0332	50	.7	
GRP88675	15	0330>9	0343	0440	N14	E53	.796	17204	19.1	70	1N						FLW
			0359														
MITK	15	0330	0343	0440D	N15	E55	.816	17204	19.3	70D	1N		C		170		EL
PURP	15	0335	0433	0704	N14	E53	.796	17204	19.1	209	2B	*	C	0433	340	5.7	FW
PEKG	15	0344	0359	0439	N13	E51	.774	17204	19.0	55	1N	*	C	0359	261	4.3	F
676 LEAR	15	0335	0352	0400	N12	W62	.878	17181	10.5	25	-N	3	C		55		
677 PURP	15	0336	0337	0342	S08	W20	.412	17188	13.6	6	-N	*	C				D

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678 PEKG	15	0359E	0359	0359D	S28	E25	.664	17202	17.0		-N		P	0359	42	.6	D
679 LEAR	15	0422	0422	0426	N13	W45	.706	17187	11.8	4	-F	3	C		23		
GRP88680	15	0436+1	0438+4	0508	S08	W21	.425	17188	13.6	32	-N				50	.5	
CULG	15	0436	0442	0510	S06	W21	.408	17188	13.6	34	-N		C	0442	60	.7	
LEAR	15	0437	0438	0505	S10	W21	.443	17188	13.6	28	-N	3	C		48		
GRP88681	15	0450>9	0524	0728	N21	E55	.822	17204	19.3	158	3N						FIJK
			0545>9														
CULG	15	0304	0545	0700D	N20	E58	.848	17204	19.5	236D	3N	*	C	0545	1400	23.8	FKIU
PEKG	15	0450	0606	0648	N21	E53	.803	17204	19.2	118	2B	*	C	0606	926	16.1	FU
LEAR	15	0508	0524	0812	N19	E54	.810	17204	19.3	184	2B	*	C		627		D
ABST	15	0558E	0559	0724D	N24	E54	.818	17204	19.3	86D	3N	*	P	0559	873	17.0	FJ
ISTA	15	0600E		0715	N21	E58	.849	17204	19.6	75D	3F	*					F
CATA	15	0655E	0655	0835	N22	E52	.795	17204	19.2	100D	2F	*	P	0655	365	6.2	
682 CULG	15	0510	0516	0534	N12	W65	.902	17181	10.3	24	-F		C	0516	40	.8	
683 ABST	15	0558E	0600	0625	S07	W20	.403	17188	13.7	27D	-F		P	0600	87	.9	DJ
684 ABST	15	0558E	0608	0615D	S27	E26	.661	17202	17.2	17D	-F		P	0608	131	1.8	DJ
685 PEKG	15	0610	0615	0625	S09	W37	.640	17188	12.5	15	*-F		C	0615	34	.4	E
GRP88686	15	0628+2	0633	0708	N12	W64	.894	17181	10.5	40	1F						EJ
			0647														
ABST	15	0628	0647	0706	N13	W65	.902	17181	10.4	38	1F		C	0647	105		EJ
LEAR	15	0628	0633	0709	N11	W66	.909	17181	10.3	41	-N	3	C		34		
ISTA	15	0630		0705	N13	W63	.886	17181	10.5	35	1F						E
PEKG	15	0649	0704	0732	N12	W63	.886	17181	10.6	43	-N		C	0704	13	.3	D
687 PEKG	15	0649	0702	0714	S27	E24	.646	17202	17.1	25	-N		C	0702	63	.9	E
GRP88688	15	0805	0808	0817	S07	W24	.457	17188	13.5	12	-N						DJ
LEAR	15	0756E	0848	0956D	N11	W67	.916	17188	10.3	120D	1N	3	C		236		
CATA	15	0835	0840	0925	N12	W66	.909	17188	10.4	50	1F		C	0840	140		
ATHN	15	0835	0837	0900	N14	W64	.894	17188	10.6	25	1B	3	S	0837	102	2.8	
			0848														
689 ABST	15	0805	0808	0817	S07	W24	.457	17181	13.5	12	-N		P	0808	87	.9	DJ
690 ATHN	15	1022	1023	1033	N15	W70	.935	17181	10.2	11	-B	3	S	1023	64	1.8	
691 CATA	15	1115	1115	1155	N13	W45	.706	17187	12.1	40	1F		C	1115	169	2.4	
692 CATA	15	1140	1145	1155	N19	W74	.956	17181	9.9	15	?F		C	1145	112		
			IMP.1 NO : RAMY														
693 LVOV	15	1201	1206	1211	N18	E05	.226	17197	15.9	10	-F		C	1206	100	1.1	E
GRP88694	15	1231>9	1241	1305	S29	E20	.641	17202	17.0	34	-N						E
			1251														
LVOV	15	1231	1241	1305	S30	E20	.652	17202	17.0	34	1F		C	1241	250	3.3	E
ATHN	15	1248	1251	1305	S28	E20	.629	17202	17.0	17	-B	3	S	1251	64	.8	
GRP88695	15	1247+1	1250+3	1302	N13	W68	.922	17181	10.4	15	1B				200		
ATHN	15	1247	1250	1258	N15	W70	.935	17181	10.3	11	1B	3	S	1250	153	4.6	
LVOV	15	1248	1253	1306	N12	W67	.916	17181	10.5	18	2N		C	1253	250		
696 HOLL	15	1555E	1555U	1621	N10	W48	.739	17187	12.1	26D	?B	2	C		189		
			IMP.1 NO : RAMY														
697 HOLL	15	1555E	1555U	1638	S10	W30	.557	17188	13.4	43D	-N	2	C		94		
	15	1817	1826	NO FLARE PATROL													
	15	2004	2052	NO FLARE PATROL													
698 CULG	15	2133	2135	2140	S29	E16	.618	17202	17.1	7	-F		C	2135	20	.3	
699 CULG	15	2155	2157	2202	S34	W55	.910	17190	11.8	7	-N		C	2157	10	.2	

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700	CULG	15	2159	2203	2208	N12	W52	.784	17187	12.0	9	-F		C	2203	40	.6	
		15	2229	2241	NO FLARE PATROL													
701	LEAR	15	2312	2315	2329	N08	E33	.542	17201	18.4	17	-F	3	C		25		
702	CULG	16	0015	0029	0058	S07	W50	.783	17188	12.3	43	-F		C	0029	50	.8	
GRP88703		16	0023+7	0029+4	0040	N10	W80	.982	17181	10.0	17	-F				45		
	CULG	16	0023	0033	0043	N10	W80	.982	17181	10.0	20	-F		C	0033	40		
	LEAR	16	0028	0029	0040	N10	W80	.982	17181	10.0	12	-F	3	C				
	YUNN	16	0030	0031	0035	N12	W78	.975	17181	10.2	5	-F		C		48		
704	CULG	16	0112	0117	0133	S15	W35	.649	17188	13.4	21	-F		C	0117	40	.5	
705	LEAR	16	0116	0118	0143	N11	W74	.957	17181	10.5	27	-F	3	C				
GRP88706		16	0206+2	0210+1	0222	S28	E13	.589	17202	17.1	16	-F				60	.7	
	CULG	16	0206	0211	0222	S28	E13	.589	17202	17.1	16	-N		C	0211	80	1.0	T
	LEAR	16	0208	0210	0221	S28	E14	.594	17202	17.1	13	-F	3	C		38		
707	CULG	16	0218	0227	0249	S35	E52	.896	17206	20.0	31	-F		C	0227	60	1.4	
708	LEAR	16	0250	0253	0306	S25	W78	.989	17189	10.3	16	-F	3	C				
709	CULG	16	0305	0311	0317	S31	W60	.927	17190	11.6	12	-F		C	0311	40	.9	
GRP88710		16	0309+1	0312+1	0317	S28	E13	.589	17202	17.1	8	-N				80	1.0	D
	LEAR	16	0309	0313	0317	S28	E12	.584	17202	17.0	8	-N	3	C		90		
	CULG	16	0310	0313	0318	S28	E13	.589	17202	17.1	8	-N		C	0313	80	1.0	T
	VORO	16	0310	0312	0316	S29	E14	.606	17202	17.2	6	-F		C	0312	72	.9	D
GRP88711		16	0330+2	0337+5	0359	S07	W33	.578	17188	13.7	29	-F				90	1.1	D
	CULG	16	0317	0337	0411	S07	W34	.592	17188	13.6	54	-N		C	0337	100	1.3	
	LEAR	16	0330	0342	0400	S08	W33	.583	17188	13.7	30	-N	3	C		87		
	YUNN	16	0332	0337	0350	S06	W34	.587	17188	13.6	18	-F		C		80	1.3	
	VORO	16	0332	0338	0358	S07	W33	.578	17188	13.7	26	-F		C	0338	99	1.2	D
712	LEAR	16	0337	0341	0345	S28	E14	.594	17202	17.2	8	-F	3	C		35		
713	CULG	16	0447U	0517	0618	N29	W15	.457	17196	15.1	91D	-F		C	0517	90	1.0	F
714	CULG	16	0519	0527	0553	S09	W40	.676	17188	13.2	34	-F		C	0527	70	1.0	
GRP88715		16	0525+2	0527+4	0535	S28	E12	.584	17202	17.1	10	-F						
	CULG	16	0525	0531	0534	S28	E12	.584	17202	17.1	9	-F		C	0531	80	1.0	T
	LEAR	16	0527	0527	0536	S28	E13	.589	17202	17.2	9	-F	3	C		20		
716	CULG	16	0536	0559	0614	S31	W61	.932	17190	11.7	38	-F		C	0559	40	.9	
717	CULG	16	0617	0623	0631	S08	W50	.785	17188	12.5	14	-N		C	0623	60	1.0	
718	CULG	16	0619	0622	0630	S35	E48	.873	17206	19.9	11	-F		C	0622	30	.6	
GRP88719		16	0648+1	0649+4	0658	S28	E11	.580	17202	17.1	10	-F						
	CULG	16	0648	0649	0658	S28	E11	.580	17202	17.1	10	-F		C	0649	100	1.2	T
	LEAR	16	0649	0653	0657	S28	E12	.584	17202	17.2	8	-F	3	C		27		
GRP88720		16	0700		0720	N27	W11	.401	17196	15.5	20	-N						E
	ISTA	16	0700		0720	N28	W12	.422	17196	15.4	20	-N						E
	ISTA	16	0710		0720	N27	W10	.394	17196	15.5	10	-F						E
721	LEAR	16	0717	0717	0727	N15	W62	.879	17187	11.7	10	-F	3	C		19		
GRP88722		16	0753+7	0755+1 0805+0	0815	S28	E11	.580	17202	17.2	22	-N				110	1.3	
	LEAR	16	0753	0756U	0814	S28	E11	.580	17202	17.2	21	-F	*	C		121		
	BUCA	16	0754	0755	0823	S26	E11	.553	17202	17.2	29	-B	*	C	0755	107	1.3	
	YUNN	16	0800	0805	0809	S28	E10	.576	17202	17.1	9	-F	*	C		32	.4	
	ATHN	16	0800E	0805	0815D	S28	E12	.584	17202	17.2	15D	-N	*	S	0805	127	1.6	

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723 ISTA	16	0755		0825	N35	W41	.740		13.3	30	-F						D
GRP88724	16	0832E	0835 0844	0854D	N15	W85	.994	17181	10.0	22	1F						H
ATHN	16	0832E	0835	0845D	N15	W80	.981	17181	10.4	13D	1F	4	S	0835	95	2.4	
KHAR	16	0841E	0844	0854D	N15	W90	1.000	17181	9.6	13D	-F		P				H
725 KHAR	16	0854E	0904	0911D	S08	W37	.635	17188	13.6	17D	-F		P	0908	40	.6	E
726 KHAR	16	0908E		0911D	S10	W27	.518	17188	14.4	3D	-F		P	0908	20	.3	D
727 KHAR	16	0924E	0928	0931D	S06	W55	.831	17188	12.3	7D	-F		P	0928	40	.8	E
728 KHAR	16	0945E	0945	0952D	N10	W88	.999	17181	9.8	7D	-F		P				E
GRP88729	16	0949	0955+1	1012D	N15	W64	.894	17187	11.6	23	1F				140	3.2	
LEAR	16	0949	0956	0959D	N15	W63	.887	17187	11.7	10D	1F	3	C		172		
KHAR	16	0952E	0955	1012D	N16	W65	.902	17187	11.5	20D	1F		P	0955	110	2.7	
730 KHAR	16	1015E	1015	1019D	S27	E10	.562	17202	17.2	4D	-N		P	1015	80	1.0	
731 KHAR	16	1039E	1039	1102D	N04	W10	.176	17203	15.7	23D	-N		P	1039	60	.1	E
GRP88732	16	1119	1132	1148	S29	E12	.597	17202	17.4	29	1B						
RAMY	16	1119	1125	1125D	S28	E12	.584	17202	17.4	6D	-B	3	C		82		
ATHN	16	1127E	1132	1148	S30	E12	.610	17202	17.4	21D	1B	4	S	1132	159	1.7	
733 RAMY	16	1157E	1158	1202	S28	E11	.580	17202	17.3	5D	-F	3	C		22		
734 RAMY	16	1318	1319	1341	S28	E10	.576	17202	17.3	23	-N	3	C		61		
GRP88735	16	1400	1402 1452+1	1519	S28	E08	.569	17202	17.2	79	1B				180	2.2	
RAMY	16	1400	1402	1435	S28	E10	.576	17202	17.3	35	-B	3	C		90		
HOLL	16	1404E	1453	1519	S28	E07	.566	17202	17.1	75D	1B	3	C		212		
RAMY	16	1448	1452	1454D	S28	E10	.576	17202	17.4	6D	-B	3	C		154		
GRP88736	16	1454+0	1457+0	1521	N11	W62	.878	17187	12.0	27	-F				20	.4	
RAMY	16	1454	1457	1519	N11	W64	.894	17187	11.8	25	-N	3	C		18		
HOLL	16	1454	1457	1522	N11	W60	.862	17187	12.1	28	-F	2	C		24		
737 HOLL	16	1519	1534	1542	N11	W81	.985	17181	10.6	23	-F	2	C				
738 RAMY	16	1608	1610	1613	N09	W62	.879	17187	12.0	5	-F	3	C		15		
739 HOLL	16	1647	1653	1655D	N09	W85	.995	17181	10.3	8D	1N	3	C				
740 HOLL	16	1753	1759	1805	S16	W40	.710	17188	13.7	12	-F	3	C		20		
	16	1904	1906	NO FLARE PATROL													
	16	1923	2135	NO FLARE PATROL													
	16	2200	2206	NO FLARE PATROL													
741 HOLL	16	2223E	2223U	2228	N11	W68	.923	17187	11.8	5D	-F	2	C		42		
742 LEAR	16	2336	2341	2350	N12	W84	.992	17181	10.7	14	-N	3	C		19		
743 LEAR	17	0005	0006	0017	S10	W49	.791	17188	13.3	12	-N	3	C		57		
744 LEAR	17	0012	0013	0017	S18	E88	1.000	17212	23.6	5	-F	3	C				
GRP88745	17	0020+4	0023+1	0035	S29	E01	.612	17202	17.1	15	-N						E
PEKG	17	0020	0023	0035	S29	E01	.612	17202	17.1	15	-N		C	0023	126	1.6	E
LEAR	17	0024	0024	0035	S29	E01	.612	17202	17.1	11	-N	3	C		37		
746 PEKG	17	0022	0028	0032	S11	W35	.643	17188	14.4	10	-N		C	0028	42	.6	E
747 LEAR	17	0152	0208	0230	S11	W47	.774	17188	13.6	38	-N	3	C		106		

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GRP88748	17	0245+4	0248+3	0255	S05	W63	.901	17188	12.4	10	-N				90	2.0	G
LEAR	17	0245	0250	0317	S07	W63	.904	17188	12.4	32	-F	3	C		97		
PURP	17	0248E	0248	0254	S05	W62	.894	17188	12.5	6D	1N		C				G
YUNN	17	0249	0251	0255	S05	W64	.908	17188	12.3	6	-N		C		80	1.9	
749 LEAR	17	0257	0259	0306	S11	W48	.784	17188	13.5	9	-F	3	C		33		
750 YUNN	17	0345	0350	0400	N13	W90	.999	17181	10.4	15	-N		C		16		
751 LEAR	17	0505	0505	0513	S21	E88	1.000	17212	23.8	8	-F	3	C				
752 ABST	17	0553E	0559	0620	S21	E87	1.000	17212	23.8	27D	?F		P	0559	175		EJ
		IMP.1 NO : PURP LEAR															
753 ABST	17	0600	0605	0621	S06	W50	.788	17188	13.5	21	-F		C	0605	87	1.4	DJ
GRP88754	17	0649+1	0657+2	0705	S29	W03	.614	17202	17.1	16	-F				80	1.0	E
ABST	17	0649E	0657	0710	S29	W03	.614	17202	17.1	21D	-F		P	0657	148	1.8	E
LEAR	17	0650	0658	0704	S29	W02	.613	17202	17.1	14	-F	3	C		56		
YUNN	17	0650	0659	0705	S27	W04	.587	17202	17.0	15	-N		C		80	1.0	
GRP88755	17	0741>9	0802	0832	S10	E90	1.000	17211	24.1	51	1N						ADJ
			0815+8														
ISTA	17	0700		0840	S15	E90	1.001	17211	24.0	100	1N						AE
ABST	17	0741	0802	0828	S11	E89	1.000	17211	24.0	47	1F		C	0802	87		DJ
YUNN	17	0758	0819	0832	S10	E90	1.000	17211	24.1	34	1B		C		129		
PEKG	17	0808	0815	0824D	S10	E91	1.001	17211	24.2	16D	-N		C	0815	21		AD
LEAR	17	0808	0823	0831	S10	E89	1.000	17211	24.0	23	-F	3	C				
756 LEAR	17	0855	0858	0901	S20	E88	1.000	17212	24.0	6	-F	3	C				
	17	0941	1104	NO FLARE PATROL													
	17	1121	1145	NO FLARE PATROL													
757 RAMY	17	1212	1227	1235	S17	E67	.946	17212	22.5	23	-F	3	C		57		
GRP88758	17	1349	1352+6	1456D	S16	E85	.999	17212	24.0	67	-N						
RAMY	17	1349	1352	1456	S18	E80	.993	17212	23.6	67	-N	3	C				
HOLL	17	1352E	1358U	1544	S15	E90	1.001	17212	24.3	112D	-N	1	C				
759 RAMY	17	1422	1423	1430	N04	W24	.412	17203	15.8	8	-F	3	C		48		
760 HOLL	17	1445	1459	1502	S09	W52	.817	17188	13.7	17	-F	2	C		33		
761 HOLL	17	1514	1524	1531	S10	W55	.847	17188	13.5	17	-F	2	C		48		
762 HOLL	17	1533	1535	1546	S12	W58	.877	17188	13.3	13	-F	3	C		46		
GRP88763	17	1615	1617	1635	S08	W69	.944	17188	12.5	20	-B						D
HOLL	17	1615	1617	1634	S09	W70	.951	17188	12.4	19	-B	3	C		29		D
RAMY	17	1624E	1624U	1635	S07	W69	.943	17188	12.5	11D	-F	3	C		31		
764 HOLL	17	1633	1638	1704	S16	E75	.979	17212	23.3	31	-N	3	C				
765 HOLL	17	1636	1638	1642	S10	W55	.847	17188	13.6	6	-F	3	C		38		
766 HOLL	17	1705	1710	1717	S18	E75	.981	17212	23.3	12	-F	3	C				
767 HOLL	17	1731	1738	1755	S11	W72	.963	17188	12.3	24	-F	3	C				
768 RAMY	17	1749	1758	1811	S18	E76	.984	17212	23.4	22	-N	3	C				
769 HOLL	17	1850	1909	1953	S16	E73	.972	17212	23.3	63	-N	3	C				
	17	1917	1940	NO FLARE PATROL													
770 HOLL	17	2003	2015	2038	S17	E73	.973	17212	23.3	35	1B	3	C				
771 HOLL	17	2106	2134	2151	S17	E72	.969	17212	23.3	45	1N	3	C				
	17	2123	2130	NO FLARE PATROL													

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772 HOLL	17	2155	2156	2224	S17	E70	.960	17212	23.2	29	-N	3	C				
GRP88773	17	2336+1	2337+1	2348	S19	E72	.971	17212	23.4	12	-N						D
HOLL	17	2326	2337	2348	S19	E72	.971	17212	23.4	22	-B	3	C				
LEAR	17	2336	2337	2349	S19	E72	.971	17212	23.4	13	-B	3	C				D
PALE	17	2337	2338	2347	S17	E74	.976	17212	23.5	10	-F	3	C				
774 LEAR	17	2353	2354	0006	S18	E70	.962	17212	23.2	13	-F	3	C				
775 CULG	18	0010U	0010U	0011D	S21	W72	.968	17188	12.6	1D	?N		P	0010	80		
			IMP.1 NO : LEAR VORO														
776 LEAR	18	0012	0019	0036	S18	E71	.961	17212	23.3	24	-B	3	C				D
777 YUNN	18	0042	0043	0045	N12	E30	.504	17208	20.3	3	-F		C		48	.6	
778 YUNN	18	0045	0046	0105	S05	W82	.992	17188	11.9	20	-N		C		48		
779 YUNN	18	0045	0046	0105	S20	E68	.949	17212	23.1	20	?N		C		193		
			IMP.1 NO : LEAR VORO PALE MITK CULG														
780 MANI	18	0142E	0144	0202D	S18	E71	.961	17212	23.4	20D	-F	1	V		50	1.3	
GRP88781	18	0236+1	0240+1	0254	S15	W55	.851	17188	14.0	18	-N				90	1.7	DJ
LEAR	18	0236	0240	0301	S15	W56	.859	17188	13.9	25	-N	3	C		111		
VORO	18	0237	0241	0246	S15	W55	.851	17188	14.0	9	-N		C	0241	72	1.3	DJ
GRP88782	18	0321E	0327	0342	S22	E78	.988	17212	24.0	21	1N				80		K
			0332+6														
PEKG	18	0321E	0327	0342	S20	E74	.975	17212	23.7	21D	1N		C	0327	76		DK
PEKG	18	0321E	0338	0342	S20	E74	.975	17212	23.7	21D	-N		C	0338	63		D
CULG	18	0332E	0332U	0345	S22	E78	.988	17212	24.0	13D	1N		C	0332	60		
YUNN	18	0336E	0336	0340	S23	E80	.993	17212	24.1	4D	1N		P		113		
783 CULG	18	0423	0427	0435	S08	W52	.805	17188	14.3	12	-N		C	0427	60	1.0	
784 YUNN	18	0440E	0440	0450	S22	E72	.969	17212	23.6	10D	?N		P		161		
			IMP.1 NO : LEAR CULG														
785 YUNN	18	0544	0547	0601	S17	E68	.945	17212	23.3	17	?N		C		193		
			IMP.1 NO : LEAR PEKG														
786 PEKG	18	0553	0557	0604	S14	W60	.888	17188	13.7	11	-N		P	0557	34	.7	E
787 ABST	18	0617E	0617	0627D	S21	E69	.955	17212	23.4	10D	?F		P	0617	87		D
			IMP.1 NO : LEAR PEKG														
GRP88788	18	0721+4	0725+2	0739	S13	W60	.887	17188	13.8	18	-F				50	1.1	D
PEKG	18	0721	0727	0743	S14	W60	.888	17188	13.8	22	-N		P	0727	50	1.1	D
CATA	18	0725	0725	0735	S13	W60	.887	17188	13.8	10	-F		C	0725	56	1.2	
789 PEKG	18	0735	0743	0800	S19	E67	.942	17212	23.3	25	-N		P	0743	84		E
790 YUNN	18	0835	0836	0842	S20	E72	.967	17212	23.8	7	?N		C		80		
			IMP.1 NO : LEAR CATA														
791 YUNN	18	0955	1000	1002	S22	E70	.960	17212	23.7	7	2N		C		290		T
792 RAMY	18	1147	1215	1247	S21	E69	.955	17212	23.7	60	-N	3	C				
GRP88793	18	1159	1159	1233	S39	E29	.789	17216	20.7	34	1F				140	2.2	
RAMY	18	1159	1159	1233	S39	E31	.799	17216	20.8	34	-F	3	C		152		
CATA	18	1205E	1205	1205D	S39	E28	.784	17216	20.6		1F		P	1205	140	2.3	
794 RAMY	18	1236	1245	1247	S10	W66	.924	17188	13.6	11	-F	3	C		20		
795 RAMY	18	1354	1412	1428	S18	E60	.897	17212	23.1	34	-F	3	C		41		
796 RAMY	18	1405	1406	1416	S09	W66	.923	17188	13.6	11	-F	3	C		44		
797 HOLL	18	1418E	1436	1449	S11	W68	.938	17188	13.5	31D	-F	2	C		40		

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798 HTPR	18	1430	1437	1441	S19	E62	.912	17212	23.3	11	-F	C	1437	20	.4	E
GRP88799	18	1431+5	1436+7	1452	S33	E12	.647	17206	19.5	21	-F			40	.5	E
HTPR	18	1431	1436	1443	S35	E10	.666	17206	19.4	12	-F	C	1436	20	.2	E
RAMY	18	1435	1438	1456D	S33	E12	.647	17206	19.5	21D	-F	3 C		40		
HOLL	18	1436	1443	1452	S33	E12	.647	17206	19.5	16	-N	2 C		48		
GRP88800	18	1453+4	1458+6	1513	S19	E63	.919	17212	23.3	20	-N			40		D
HTPR	18	1453	1458	1510	S19	E62	.912	17212	23.3	17	-F	C	1458	30	.6	
HOLL	18	1457	1504	1515	S19	E65	.931	17212	23.5	18	-B	3 C		47		D
GRP88801	18	1523E	1524+0	1529	S19	E63	.919	17212	23.4	6	-F			35		
RAMY	18	1509E	1524	1531	S20	E66	.938	17212	23.6	22D	-N	3 C		41		
HTPR	18	1523	1524	1527	S19	E61	.906	17212	23.2	4	-F	C	1524	30	.6	
GRP88802	18	1537+7	1600	1607	S34	E11	.656	17206	19.5	30	-F					E
HTPR	18	1537		1558D	S35	E10	.666	17206	19.4	21D	-N	C	1546	80	1.0	E
RAMY	18	1544	1600	1607	S34	E12	.659	17206	19.6	23	-F	3 C		20		
803 HOLL	18	1604	1612	1624	S18	E64	.923	17212	23.5	20	-N	3 C		31		
804 RAMY	18	1627	1629	1648	S34	E12	.659	17206	19.6	21	-N	3 C		36		
805 HOLL	18	1659	1702	1705	S15	E63	.912	17212	23.4	6	-F	3 C		19		
806 HOLL	18	1743	1744	1803	S15	E63	.912	17212	23.5	20	-N	3 C		47		
807 HOLL	18	1819	1837	1850	S17	E61	.902	17212	23.3	31	-B	3 C		46		
808 HOLL	18	1857	1902	1917	S33	E10	.640	17206	19.5	20	-N	3 C		60		
809 HOLL	18	1934	1938	2006	S18	E62	.910	17212	23.5	32	-B	3 C		28		D
810 PALE	18	2023	2024	2027	S16	E61	.900	17212	23.4	4	-F	2 C		40		
811 HOLL	18	2043	2046	2056	S16	E61	.900	17212	23.4	13	-N	3 C		25		
GRP88812	18	2129+0	2131+0	2139	S15	E53	.833	17212	22.9	10	-N			50	.9	
HOLL	18	2129	2131	2137	S15	E52	.824	17212	22.8	8	-B	3 C		61		
PALE	18	2129	2131	2140	S15	E54	.842	17212	22.9	11	-F	2 C		46		
GRP88813	18	2143+1	2143+1	2209	S19	E62	.912	17212	23.6	26	-N					
CULG	18	2143E	2143U	2209	S21	E62	.916	17212	23.6	26D	-N	P	2143	50		
HOLL	18	2144	2144	2146D	S18	E62	.910	17212	23.6	2D	-B	3 C		14		
814 CULG	18	2218	2219	2224	S13	W70	.951	17188	13.7	6	-F	C	2219	40		
GRP88815	18	2242+4	2248+0 2255	2307	S33	E08	.635	17206	19.5	25	-B			140	1.8	DJ
CULG	18	2242	2255	2307	S35	E08	.661	17206	19.5	25	-B	C	2255	100	1.3	J
LEAR	18	2244	2248	2314D	S33	E08	.635	17206	19.5	30D	-B	3 C		152		
HOLL	18	2246	2248	2305	S33	E09	.637	17206	19.6	19	-B	3 C		129		D
GRP88816	18	2301+4	2308+3	2333	S10	E67	.931	17211	24.0	32	-F					
CULG	18	2301	2311	2345	S09	E66	.923	17211	23.9	44	1F	* C	2311	150		
HOLL	18	2305	2308	2320	S11	E68	.938	17211	24.1	15	-F	3 C		17		
817 CULG	18	2319	2325	2337	S35	E04	.654	17206	19.3	18	-F	C	2325	80	1.0	
GRP88818	18	2329+1	2332+3	2344	S18	E61	.904	17212	23.6	15	-N			50	1.1	
PALE	18	2329	2332	2343	S16	E61	.900	17212	23.6	14	-F	* C		51		
CULG	18	2329	2335	2345	S20	E63	.920	17212	23.7	16	-N	* C	2335	60	1.5	
LEAR	18	2330	2334	2344	S18	E60	.897	17212	23.5	14	-N	* C		26		
819 CULG	18	2346	2347	2357	N22	E21	.439	17214	20.6	11	-N	C	2347	50	.6	
820 LEAR	18	2353	2354	0006	S18	E70	.956	17212	24.2	13	-F	3 C				

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88821	19	0000+1	0002+3	0009	S20	E60	.901	17212	23.5	9	-N				70	1.5	DV
VORO	19	0000	0003	0008	S20	E63	.920	17212	23.7	8	1F		C	0003	90		D
CULG	19	0000	0005	0016	S21	E61	.910	17212	23.6	16	1B		C	0005	80	2.0	TV
LEAR	19	0001	0002	0009	S20	E59	.894	17212	23.4	8	-B	3	C		63		D
MANI	19	0003E	0003U	0010	S19	E60	.899	17212	23.5	7D	-N	1	V		60	1.3	
PALE	19	0003E	0003	0007	S18	E60	.896	17212	23.5	4D	-F	2	C		30		
PURP	19	0005E	0005	0007D	S21	E60	.903	17212	23.5	2D	-B		C				D
822 CULG	19	0027	0039	0051	S19	E62	.912	17212	23.7	24	-N		C	0039	70	1.8	FT
GRP88823	19	0045+2	0047+1	0055	S32	E08	.620	17206	19.6	10	-N						EV
CULG	19	0045	0047	0115	S32	E08	.620	17206	19.6	30	1B		C	0047	170	2.2	V
MANI	19	0045	0048	0055D	S32	E07	.618	17206	19.6	10D	-N	2	P		60	.8	
LEAR	19	0046	0048	0058	S34	E08	.647	17206	19.6	12	1N	3	C		187		
VORO	19	0047	0048	0053	S32	E08	.620	17206	19.6	6	-F		C	0048	36	.4	E
PALE	19	0047	0048	0051	S33	E08	.634	17206	19.6	4	-F	2	C		39		
824 CULG	19	0117	0139	0251U	N15	E18	.343	17208	20.4	94D	?F		C	0139	280	3.0	SF
			IMP.1 NO : VORO PURP PALE														
GRP88825	19	0126+2	0129+3	0139	S35	E04	.653	17206	19.4	13	-F				40	.5	DH
CULG	19	0126	0129	0139	S35	E03	.652	17206	19.3	13	-N		C	0129	50	.7	
VORO	19	0128	0131	0140	S35	E04	.653	17206	19.4	12	-F		C	0131	54	.7	DH
LEAR	19	0128	0132	0136	S34	E07	.645	17206	19.6	8	-F	3	C		28		
GRP88826	19	0150+4	0155+2	0216	S08	W74	.966	17188	13.5	26	-F						
			0214														
LEAR	19	0150	0157U	0219D	S08	W74	.966	17188	13.5	29D	-F	3	C				
CULG	19	0154	0155	0211	S06	W73	.960	17188	13.6	17	-N		C	0155	60		
MANI	19	0213	0214	0216D	S09	W74	.967	17188	13.5	3D	-F	2	P		15	.4	
GRP88827	19	0202	0203+1	0211	S19	E60	.899	17212	23.6	9	-F				35	.8	
PALE	19	0202	0203	0208	S18	E60	.896	17212	23.6	6	-F	2	C		44		
LEAR	19	0203E	0204	0214D	S20	E60	.901	17212	23.6	11D	-N	3	C		27		
GRP88828	19	0209+3	0213+0	0223	S34	E07	.645	17206	19.6	14	-F				70	.9	E
CULG	19	0209	0213	0223	S32	E08	.620	17206	19.7	14	-F		C	0213	80	1.0	
LEAR	19	0210E	0213U	0226D	S34	E07	.645	17206	19.6	16D	-F	3	C		73		
VORO	19	0212	0213	0220	S38	E07	.695	17206	19.6	8	-F		C	0213	63	.9	E
829 LEAR	19	0221	0221	0237	S18	E55	.858	17212	23.2	16	-F	3	C		15		
GRP88830	19	0247	0250+1	0300	S31	E06	.602	17206	19.6	13	-F				60	.7	DH
VORO	19	0247	0250	0300	S32	E06	.616	17206	19.6	13	-F		C	0250	54	.7	DH
CULG	19	0250U	0251U	0251D	S31	E07	.604	17206	19.6	1D	-F		P	0251	70	.9	
GRP88831	19	0300	0303+2	0312	S18	E57	.874	17212	23.4	12	-F				70	1.4	D
VORO	19	0300	0303	0310	S18	E58	.882	17212	23.5	10	-F		C	0303	72	1.5	D
LEAR	19	0303E	0305U	0313	S19	E57	.877	17212	23.4	10D	-N	3	C		68		
832 LEAR	19	0312	0315	0332D	S19	E57	.877	17212	23.4	20D	-N	3	C		60		
833 LEAR	19	0433	0434U	0448D	S17	E58	.879	17212	23.5	15D	-F	2	C		23		
GRP88834	19	0537	0544+1	0558	S19	E57	.877	17212	23.5	21	-B				80	1.6	
			0552														
CULG	19	0537	0544	0601	S19	E58	.884	17212	23.6	24	-B		C	0544	80	1.6	
LEAR	19	0544E	0545	0558D	S18	E53	.842	17212	23.2	14D	-B	2	C		92		
PURP	19	0549	0552	0557	S21	E57	.882	17212	23.5	8	1B		C				
GRP88835	19	0609+1	0612+3	0620	S33	E03	.625	17206	19.5	11	-N				130	1.7	D
CULG	19	0609	0612	0619	S32	E05	.614	17206	19.6	10	-N		C	0612	120	1.6	
ABST	19	0610	0615	0620	S33	E02	.624	17206	19.4	10	-F		C	0615	87	1.1	D
LEAR	19	0610	0615	0621	S33	E03	.625	17206	19.5	11	-N	3	C		175		
GRP88836	19	0640+5	0643+2	0713	S19	E56	.869	17212	23.5	33	-N				80	1.6	
LEAR	19	0640	0643U	0655	S19	E56	.869	17212	23.5	15	-B	3	C		66		
PEKG	19	0640	0644	0750	S19	E56	.869	17212	23.5	70	-N		P	0644	97	2.0	D
CULG	19	0641	0643	0647D	S20	E56	.872	17212	23.5	6D	-B		C	0643	60	1.2	
CATA	19	0645	0645	0655	S21	E55	.867	17212	23.4	10	-F		C	0645	84	1.7	
KHAR	19	0721E	0721	0731D	S19	E59	.892	17212	23.7	10D	-F		P	0721	70	1.6	E

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837	KHAR	19	0717E	0721	0731D	S33	E03	.625	17206	19.5	14D	-F		P	0721	50	.7	T
838	KHAR	19	0737E	0737	0744D	S34	E00	.637	17206	19.3	7D	-F		P	0737	60	.8	
839	KHAR	19	0757E	0757	0807D	S20	E59	.894	17212	23.8	10D	-F		P	0757	60	1.3	E
GRP88840		19	0829+8	0839	0842	S33	E01	.624	17206	19.4	13	-F						
	KHAR	19	0829E		0839D	S33	E00	.624	17206	19.4	10D	-F		P	0829	30	.4	T
	LEAR	19	0837	0839	0842	S34	E03	.639	17206	19.6	5	-F	3	C		19		
GRP88841		19	0845E	0854 0902	0925	S20	E54	.856	17212	23.4	40	-N						D
	ABST	19	0845E	0854	0858	S20	E56	.872	17212	23.6	13D	-F		P	0854	87	1.7	D
	KHAR	19	0849E	0902	0929D	S19	E54	.853	17212	23.4	40D	1F		P	0902	120	2.3	
	LEAR	19	0856	0917	0925	S20	E53	.848	17212	23.3	29	-B	3	C		34		
GRP88842		19	0934	0935+2	0942	S34	00	.637	17206	19.4	8	-F				30	.4	D
	LEAR	19	0934	0937	0942	S35	W01	.651	17206	19.3	8	-F	3	C		21		
	KHAR	19	0935E	0935	0942D	S33	E00	.624	17206	19.4	7D	-F		P	0935	40	.5	DT
GRP88843		19	0935+4	0939+3	1002D	S20	E52	.840	17212	23.3	27	1N				210	3.8	E
	CATA	19	0935	0940	0950D	S20	E52	.840	17212	23.3	15D	1F		P	0940	253	4.8	
	KHAR	19	0939E	0942	1002D	S19	E53	.845	17212	23.4	23D	1N		P	0942	210	3.9	E
	LEAR	19	0939	0939	0949D	S20	E52	.840	17212	23.3	10D	-B	3	C		71		
844	KHAR	19	1140E		1140D	S33	W03	.625	17206	19.3		-F		P	1140	20	.3	T
845	KHAR	19	1157E	1200	1210D	S19	E56	.869	17212	23.7	13D	-F		P	1203	50	1.0	E
846	KHAR	19	1217E	1220	1225D	S21	E57	.882	17212	23.8	8D	-F		P	1220	50	1.0	E
847	KHAR	19	1237E	1240	1243D	S20	E55	.864	17212	23.7	6D	-F		P	1240	40	.8	D
848	KHAR	19	1303E	1303	1306D	S33	W02	.624	17206	19.4	3D	-F		P	1303	40	.5	ET
		19	1307	1402	NO FLARE PATROL													
		19	1414	1632	NO FLARE PATROL													
849	HOLL	19	1653	1655	1711	S18	E51	.825	17212	23.5	18	-N	3	C		17		
		19	1737	1746	NO FLARE PATROL													
		19	2022	2027	NO FLARE PATROL													
		19	2042	2054	NO FLARE PATROL													
850	CULG	19	2128	2128	2129	S15	E47	.776	17212	23.4	1	-N		C	2128	30	.5	
851	CULG	19	2242	2245	2257	S31	W07	.604	17206	19.4	15	-N		C	2245	80	1.0	
852	CULG	19	2310	2331	0007	N27	W08	.386	17205	19.4	57	-F		C	2331	140	1.5	
853	CULG	20	0030	0037	0046	S20	W01	.431	17207	19.9	16	-F		C	0037	70	.8	G
854	CULG	20	0034	0050	0115	S35	W08	.659	17206	19.4	41	?N		C	0050	200	2.6	F
				IMP.1	NO : LEAR PALE													
855	CULG	20	0055	0100	0107	S19	E45	.773	17212	23.4	12	-F		C	0100	80	1.3	T
856	CULG	20	0055	0102	0115	S29	W40	.784	17202	17.0	20	-F		C	0102	40	.6	
857	CULG	20	0200	0203	0214	S19	E44	.763	17212	23.4	14	?F		C	0203	130	2.1	FT
				IMP.1	NO : LEAR													
858	CULG	20	0226	0235	0255	S25	W69	.959	17199	14.9	29	-F		C	0235	30		G
GRP88859		20	0404+1	0405+0	0423	S18	E43	.749	17212	23.4	19	-B				40	.6	
	CULG	20	0404	0405	0415D	S19	E43	.754	17212	23.4	11D	-B		C	0405	30	.5	T
	LEAR	20	0405	0405	0423	S17	E44	.754	17212	23.5	18	-B	3	C		49		
860	LEAR	20	0446	0451	0503	S18	E42	.739	17212	23.3	17	-B	3	C		117		D
861	LEAR	20	0632	0632	0641	S18	E41	.729	17212	23.3	9	-N	3	C		40		

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862	KHAR	20	0737E	0740	0750D	S38	W10	.701	17206	19.6	13D	-F		P	0740	50	.7	E
GRP88863		20	0817+0	0818+3	0830	N21	E04	.275	17214	20.6	13	-F						
	KANZ	20	0817	0821	0829	N22	E03	.288	17214	20.6	12	-F	1					
	WEND	20	0817	0818	0830	N20	E05	.264	17214	20.7	13	-F		C	0818	40	.4	
GRP88864		20	0851E	0858+2	0927	S38	W09	.698	17206	19.7	36	-F				130	1.8	
	KHAR	20	0851E	0858	0928D	S39	W10	.713	17206	19.6	37D	-F		P	0858	70	1.0	
	CATA	20	0855E	0900	0925	S38	W08	.696	17206	19.8	30D	1F		P	0900	169	2.4	
	WEND	20	0904E		0927	S37	W09	.686	17206	19.7	23D	-N		C	0904	130	1.7	
GRP88865		20	0858+3	0901+4	0914	S19	E41	.734	17212	23.4	16	1N				220	3.2	E
	ABST	20	0858	0902	0906D	S19	E42	.744	17212	23.5	8D	1N		P	0902	175	2.6	E
	CATA	20	0900	0905	0910	S20	E41	.740	17212	23.4	10	1F		C	0905	225	3.4	
	KANZ	20	0901	0901	0904D	S18	E42	.739	17212	23.5	3D	1B	1					
	LEAR	20	0901	0903	0913	S19	E40	.724	17212	23.4	12	1N	3	C		293		
	KHAR	20	0901E	0904	0918D	S19	E41	.734	17212	23.5	17D	1N		P	0904	150	2.2	E
	WEND	20	0904E		0915	S18	E40	.718	17212	23.4	11D	1B		C	0904	230	3.3	
		20	0957	1004	NO FLARE PATROL													
866	KHAR	20	1029E	1033	1043D	S18	E40	.718	17212	23.4	14D	?F		P	1033	145	2.2	E
				IMP.1	NO : CATA													
867	KHAR	20	1111E		1111D	S20	E32	.649	17212	22.9		-F		P	1111	50	.7	
		20	1202	1222	NO FLARE PATROL													
868	KHAR	20	1228E	1234	1251D	N22	E01	.284	17214	20.6	23D	-F		P	1234	40	.4	
869	RAMY	20	1454	1459	1508	N23	W01	.301	17214	20.5	14	-F	3	C		31		
870	RAMY	20	1516	1521	1613	S14	E45	.751	17211	24.0	57	-N	3	C		37		
GRP88871		20	1831+1	1834+0	1843	S17	E41	.723	17212	23.8	12	-N				80	1.1	
	BOUL	20	1831	1834	1839	S17	E45	.764	17212	24.1	8	-B	3	C		100		
	BIGB	20	1832	1834	1846	S18	E37	.687	17212	23.5	14	-N	2	C	1834	70	.9	
872	CULG	20	2304	2306	2312	S18	E35	.666	17212	23.6	8	-F		C	2306	60	.8	T
873	CULG	20	2321	2332	2354	S10	E45	.736	17211	24.3	33	-N		C	2332	100	1.5	T
GRP88874		20	2343+3	2347	0009	N17	E47	.736	17218	24.5	26	-B						J
				2354														
	CULG	20	2343	2347	0012	N17	E47	.736	17218	24.5	29	1B		C	2347	140	2.3	J
	LEAR	20	2346	2354	0006	N17	E47	.736	17218	24.5	20	-N	3	C		53		
GRP88875		21	0001+1	0003+2	0024	N22	W02	.287	17214	20.9	23	-N				120	1.3	
	CULG	21	0001	0005	0025	N22	W01	.286	17214	20.9	24	-B		C	0005	150	1.6	
	LEAR	21	0002	0003	0022	N22	W02	.287	17214	20.9	20	-B	3	C		136		
	PALE	21	0003E	0005U	0010D	N22	W03	.290	17214	20.8	7D	-F	2	C		65		
876	CULG	21	0035	0037	0058	S12	E37	.652	17212	23.8	23	?N		C	0037	190	2.5	T
				IMP.1	NO : LEAR PALE													
877	CULG	21	0039	0046	0114	S21	E31	.647	17212	23.4	35	-N		C	0046	100	1.3	TF
878	CULG	21	0144U	0204	0226	S18	E30	.612	17212	23.3	42D	?N		C	0204	150	2.0	FT
				IMP.1	NO : LEAR													
879	CULG	21	0226	0234	0249U	N21	W07	.292	17214	20.6	23D	-F		C	0234	110	1.2	JT
880	CULG	21	0427	0432	0456	N15	E43	.686	17218	24.4	29	?B		C	0432	200	2.8	
				IMP.1	NO : LEAR YUNN													
881	CULG	21	0442U	0455	0500U	N18	W05	.233	17214	20.8	18D	-F		C	0455	60	.6	JT
GRP88882		21	0535+2	0535+3	0545	S18	E30	.612	17212	23.5	10	-N				40	.5	
	YUNN	21	0535E	0535	0540	S19	E30	.620	17212	23.5	5D	-F		P		32	.4	
	LEAR	21	0537	0538	0545	S18	E32	.633	17212	23.6	8	-N	3	C		44		
	CULG	21	0542E	0542U	0549	S18	E29	.601	17212	23.4	7D	-N		P	0542	40	.5	

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	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88883		21	0612+2	0616+1	0628	N22	W08	.314	17214	20.7	16	-F				45	.5	
	LEAR	21	0612	0617	0625	N22	W08	.314	17214	20.7	13	-F	3	C		52		
	CULG	21	0614	0616	0630U	N22	W08	.314	17214	20.7	16D	-N		C	0616	40	.4	
884	LEAR	21	0647	0647	0652	S18	E29	.601	17212	23.5	5	-F	3	C		31		
885	LEAR	21	0708	0709	0716	N22	W08	.314	17214	20.7	8	-F	3	C		35		
GRP88886		21	0740+5	0745+8	0810	N22	W09	.321	17214	20.6	30	-N				90	1.0	E
	HTPR	21	0740	0750	0825	N23	W10	.343	17214	20.6	45	-N		C	0750	70	.7	E
	WEND	21	0741E		0804D	N23	W08	.329	17214	20.7	23D	-N		C	0746	88	1.0	
	ABST	21	0743	0745	0806D	N20	W09	.292	17214	20.6	23D	-F		P	0745	122	1.3	E
	KANZ	21	0743	0751	0810	N22	W09	.321	17214	20.6	27	-N	2					
	CATA	21	0745	0745	0810D	N21	W08	.299	17214	20.7	25D	-F		P	0745	140	1.5	
	LEAR	21	0745	0753	0810	N22	W09	.321	17214	20.6	25	-N	3	C		60		
GRP88887		21	0822+5	0824	0845	S18	E29	.601	17212	23.5	23	-F						D
				0832														
	KANZ	21	0822	0824	0845	S23	E29	.645	17212	23.5	23	-F	1					
	LEAR	21	0827	0832	0844	S18	E28	.591	17212	23.5	17	-F	3	C		50		
	KHAR	21	0836E	0842	0859D	S14	E35	.640	17212	24.0	23D	-F		P	0842	50	.7	D
888	KANZ	21	0833	0833	0849	N23	W10	.343	17214	20.6	16	-F	1					
GRP88889		21	0912+0	0919+3	0947	N21	W09	.307	17214	20.7	35	-N				60	.6	
				0929														
	KANZ	21	0912	0919	1005	N21	W10	.315	17214	20.6	53	-N	2					
	LEAR	21	0912	0922	0925	N22	W10	.329	17214	20.6	13	-F	3	C		39		
	WEND	21	0917E		0947D	N21	W09	.307	17214	20.7	30D	-N		C	0922	75	.8	
	LEAR	21	0926	0929	0939	N22	W09	.321	17214	20.7	13	-F	3	C		44		
GRP88890		21	0945>9	1000+5	1030	S14	E40	.697	17211	24.4	45	-N				90	1.2	EI
	HTPR	21	0945	1002	1025	S13	E40	.692	17211	24.4	40	-B		C	1002	80	1.0	EI
	KANZ	21	0957	1005	1035	S14	E42	.719	17211	24.6	38	-N	3					
	CATA	21	1000E	1000	1030D	S16	E39	.696	17211	24.3	30D	-F		P	1000	112	1.6	
GRP88891		21	1012+3	1014	1041	S23	E26	.617	17212	23.4	29	-N						EL
				1025+5														
	KANZ	21	1012	1025	1042	S23	E26	.617	17212	23.4	30	-B	3					L
	HTPR	21	1012	1014	1040	S22	E26	.608	17212	23.4	28	-N		C	1014	40	.4	E
	CATA	21	1015	1030	1030D	S25	E25	.629	17212	23.3	15D	-F		P	1030	140	1.9	
892	HTPR	21	1230	1237	1300	N23	W13	.368	17214	20.5	30	-F		C	1237	30	.3	E
GRP88893		21	1359+2	1401	1417	S23	E30	.654	17212	23.8	18	-F						L
	WEND	21	1359		1420	S23	E30	.654	17212	23.8	21	-F		C	1406	22	.3	
	KANZ	21	1401	1401	1413	S23	E30	.654	17212	23.8	12	-F	3					L
GRP88894		21	1406	1419+0	1443	N22	W13	.355	17214	20.6	37	-N				35	.4	
	HTPR	21	1406	1419	1443	N23	W14	.377	17214	20.5	37	-N		C	1419	30	.3	
	HOLL	21	1418E	1419U	1443	N22	W13	.355	17214	20.6	25D	-N	3	C		38		
GRP88895		21	1416+1	1417+5	1435	N17	E38	.628	17218	24.4	19	-N				70	.9	E
	HTPR	21	1341	1419	1435	N17	E37	.616	17218	24.3	54	-F	*	C	1419	60	.7	E
	WEND	21	1416E		1424D	N17	E39	.641	17218	24.5	8D	-N	*	C	1422	63	.9	
	KANZ	21	1417	1417	1432	N17	E38	.628	17218	24.4	15	-N	*					
	HOLL	21	1418E	1422U	1443	N16	E38	.626	17218	24.4	25D	-N	*	C		100		
GRP88896		21	1529+1	1535+3	1606	N08	E53	.795	17219	25.6	37	-B				110	1.8	E
	HTPR	21	1529	1536	1601	N06	E55	.816	17219	25.8	32	-B		C	1536	110	1.9	E
	HOLL	21	1529	1535	1622	N09	E52	.784	17219	25.5	53	1N	3	C		166		
	BIGB	21	1530	1538	1606	N08	E53	.795	17219	25.6	36	-B	1	C	1538	50	.9	
GRP88897		21	1533+7	1542+1	1600D	N22	W14	.365	17214	20.6	27	-F						
	HOLL	21	1533	1543	1652	N22	W14	.365	17214	20.6	79	-N	3	C		56		
	HTPR	21	1540	1542	1600	N23	W14	.377	17214	20.6	20	-F		C	1542	20	.2	
898	RAMY	21	1733	1735	1745	S21	E24	.579	17212	23.5	12	-F	3	C		27		
899	HOLL	21	1755	1759	1811	N19	W14	.330	17214	20.7	16	-F	3	C		30		

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No.	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
900	HOLL	21	1815	1819	1838	N17	E36	.603	17218	24.5	23	-F	3	C		40		
901	HOLL	21	1820	1823	1835	S09	E33	.587	17211	24.2	15	-N	3	C		26		
902	HOLL	21	1957	1958	2004	S13	E34	.622	17211	24.4	7	-N	3	C		31		
903	HOLL	21	2054	2054	2102	N20	W17	.375	17214	20.6	8	-F	3	C		33		
904	CULG	21	2139	2147	2206	S13	E33	.610	17211	24.4	27	-F		C	2147	80	1.0	
905	HOLL	21	2145	2151	2201	N23	W19	.429	17214	20.5	16	-F	3	C		38		
906	HOLL	21	2306	2307	0003D	N22	W19	.419	17214	20.5	57D	-F	3	C		28		
GRP88907		21	2348	2351+4	0023	S10	E30	.554	17211	24.2	35	-N				60	.7	FK
	HOLL	21	2348	2351	0003D	S09	E30	.548	17211	24.2	15D	-N	3	C		47		
	CULG	21	2349U	2355	0023	S11	E30	.560	17211	24.2	34D	-N		C	2355	80	1.0	KF
908	CULG	22	0004	0011	0016	S11	E53	.821	17223	26.0	12	-F		C	0011	40	.7	
909	CULG	22	0018	0023	0105	S15	E20	.476	17212	23.5	47	-N		C	0023	120	1.4	FI
910	CULG	22	0047	0049	0056	N19	W22	.429	17214	20.4	9	-N		C	0049	40	.4	T
911	CULG	22	0108	0112	0147	N15	E32	.543	17218	24.4	39	-N		C	0112	140	1.7	HT
912	MITK	22	0109E	0113	0215	S22	E19	.546	17212	23.5	66D	-N		C				D
GRP88913		22	0121+3	0126+0	0144	S34	W25	.718	17206	20.2	23	-F						
	CULG	22	0121	0126	0150	S34	W25	.718	17206	20.2	29	-F		C	0126	110	1.5	
	LEAR	22	0124	0126	0138	S34	W25	.718	17206	20.2	14	-F	3	C		37		
914	CULG	22	0153	0206	0238	S11	E29	.547	17211	24.3	45	?B		C	0206	300	3.4	
				IMP.1 NO : LEAR MITK														
915	CULG	22	0158	0209	0226	N08	E45	.704	17219	25.5	28	-F		C	0209	60	.8	
916	CULG	22	0314	0318	0327	S21	E18	.526	17212	23.5	13	-N		C	0318	80	.9	
917	CULG	22	0317	0333	0422	N25	W21	.472	17214	20.6	65	-B		C	0333	80	.9	
GRP88918		22	0510+1	0514+2	0543	S14	E29	.569	17211	24.4	33	1B				260	3.1	
	LEAR	22	0455	0514	0553	S13	E29	.561	17211	24.4	58	1B	3	C		250		D
	CULG	22	0510	0516	0533	S15	E28	.565	17211	24.3	23	1B		C	0516	280	3.7	
	MITK	22	0511	0515	0524D	S14	E30	.581	17211	24.5	23D	-B		C				E
919	HTPR	22	0727	0727	0731	S10	E26	.501	17211	24.3	4	-F		C	0727	20	.2	E
920	ABST	22	0742	0746	0749	N06	E51	.774	17219	26.1	7	-F		C	0746	87	1.4	D
GRP88921		22	0948	0957+3	1011	S07	W47	.749	17224	18.9	23	-F						
	KANZ	22	0948	1000	1011	S07	W46	.738	17224	19.0	23	-F	3					
	KHAR	22	0954E	0957	1004D	S07	W48	.760	17224	18.8	10D	-F		P	0957	100	1.6	
922	HTPR	22	1028	1033	1037	S22	E17	.530	17212	23.7	9	-F		C	1033	20	.2	
923	HTPR	22	1119	1131	1145	S15	E24	.519	17211	24.3	26	-F		C	1131	20	.2	
GRP88924		22	1251+1	1254+1	1303	S15	E26	.542	17211	24.5	12	-N						
	HTPR	22	1251	1254	1303	S15	E24	.519	17211	24.3	12	-N		C	1254	50	.5	E
	KANZ	22	1251	1255	1303	S13	E26	.525	17211	24.5	12	-F	3					
	LVOV	22	1252	1255	1308	S17	E26	.560	17211	24.5	16	-N		C	1255	200	2.0	D
GRP88925		22	1331+2	1333+2	1341	S19	E05	.420	17212	22.9	10	-N						EL
	KANZ	22	1331	1335	1343	S19	E06	.423	17212	23.0	12	-N	3					L
	HTPR	22	1331	1333	1339	S19	E05	.420	17212	22.9	8	-N		C	1333	60	.6	
	LVOV	22	1333	1335	1341	S19	E03	.415	17212	22.8	8	-N		C		150	1.7	E
926	HTPR	22	1430E		1459D	N14	W19	.352	17209	21.2	29D	-F		C	1449	20	.2	

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	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs Type		Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88927		22	1525+2	1530+3	1555	N19	W27	.495	17214	20.6	30	-N						E
	HTPR	22	1525	1530	1550	N20	W26	.488	17214	20.7	25	-N		C	1530	20	.2	E
	HOLL	22	1527	1533	1600	N18	W29	.515	17214	20.5	33	-B	3	C		74		
928	HOLL	22	1642	1642	1659	S08	W50	.784	17224	18.9	17	-F	3	C		26		
929	HOLL	22	1758	1758	1808	S12	E22	.468	17211	24.4	10	-N	3	C		31		
930	HOLL	22	1808	1812	1816	S08	W47	.752	17224	19.2	8	-F	3	C		26		
		22	1857	1912	NO FLARE PATROL													
931	HOLL	22	1918	1931	1940	S08	W49	.773	17224	19.1	22	-F	3	C		19		
932	HOLL	22	1923	1928	1939	S19	E13	.462	17212	23.8	16	-F	*	C		25		
933	HOLL	22	1954	1955	1958	S13	E15	.401	17211	24.0	4	-N	3	C		29		
934	HOLL	22	1954	1955	1958	S09	W52	.807	17224	18.9	4	-F	3	C		24		
935	HOLL	22	2058	2103	2111	S08	W53	.814	17224	18.9	13	-F	3	C		29		
936	CULG	22	2234	2242	2300	S06	W54	.820	17224	18.9	26	-F		C	2242	80	1.4	
937	HOLL	22	2239	2246	2255	N21	W31	.558	17214	20.6	16	-N	3	C		25		
938	HOLL	22	2305	2306	2324	S19	E08	.432	17212	23.6	19	-F	*	C		39		
939	LEAR	22	2333	2336	2347	S19	E06	.423	17212	23.4	14	-F	*	C		45		
GRP88940		22	2359+1	0006+7	0123	N22	W33	.588	17214	20.5	84	1B				240	3.0	E
				2419														
	MITK	22	0000	0013	0140D	N23	W33	.594	17214	19.5	100D	1B		C		300		E
	HOLL	23	0000	0006	0009D	N22	W34	.600	17214	20.5	9D	1B	3	C		213		D
	MANI	23	0005E	0008	0017D	N19	W32	.560	17214	20.6	12D	-B	1	V		150	1.9	
	VORO	23	0034E		0055D	N23	W33	.594	17214	20.5	21D	-N		P	0035	99	1.2	CE
	LEAR	22	2359	2408	0123	N22	W32	.576	17214	20.6	84	1B	3	C		299		
	CULG	22	2359	2419	0123	N22	W33	.588	17214	20.5	84	1B		C	2419	290	3.6	
GRP88941		23	0037>9	0048+0	0054	S20	E06	.437	17212	23.5	17	-N				50	.6	
	CULG	23	0037	0048	0057	S21	E07	.456	17212	23.6	20	-N	*	C	0048	70	.8	
	LEAR	23	0047	0048	0051	S19	E06	.422	17212	23.5	4	-N	*	C		41		
GRP88942		23	0047+3	0051+0	0102	S06	W52	.800	17224	19.1	15	-F				25	.4	
	CULG	23	0047	0051	0104	S06	W52	.800	17224	19.1	17	-F		C	0051	30	.5	
	LEAR	23	0050	0051	0100	S07	W53	.812	17224	19.1	10	-F	3	C		23		
943	CULG	23	0158	0200	0208	S18	E03	.398	17212	23.3	10	-F	*	C	0200	40	.4	H
944	LEAR	23	0230	0231	0241	S19	E15	.476	17212	24.2	11	-F	*	C		29		
		23	0416	0435	NO FLARE PATROL													
GRP88945		23	0446+9	0457+1	0506	N21	W33	.583	17214	20.7	20	-N				60	.7	D
	LEAR	23	0446	0457	0512D	N21	W34	.595	17214	20.6	26D	-B	3	C		48		D
	YUNN	23	0455	0458	0500	N22	W33	.588	17214	20.7	5	-N		C		80	1.0	
946	LEAR	23	0518	0522	0540	S17	E02	.380	17212	23.4	22	-F	*	C		44		
947	LEAR	23	0525	0526	0536	S15	E17	.444	17211	24.5	11	-F	3	C		57		
948	LEAR	23	0606	0608	0614	S19	E03	.414	17212	23.5	8	-F	*	C		33		
GRP88949		23	0734+2	0739+4	0812	N20	W35	.603	17214	20.7	38	1N				200	2.5	EG
	KANZ	23	0734	0740	0800D	N19	W34	.586	17214	20.8	26D	-B	3					G
	CATA	23	0735	0740	0810	N20	W34	.590	17214	20.8	35	1F		C	0740	197	2.5	
	LEAR	23	0736	0741	0815	N20	W34	.590	17214	20.8	39	1B	3	C		207		
	ABST	23	0736	0742	0812	N20	W35	.603	17214	20.7	36	1N		C	0742	175	2.3	E
	KHAR	23	0736E	0739	0808D	N20	W34	.590	17214	20.8	32D	1N		P	0739	380	5.0	E
	ATHN	23	0740E	0743	0808	N23	W37	.641	17214	20.5	28D	-B	2	S	0743	64	.8	
	BUCA	23	0805E		0816D	N21	W36	.620	17214	20.6	11D	-N		C	0806	107	1.4	E

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950 KHAR	23	0736E		0736D	S06	W59	.866	17224	18.9		-F		P	0736	50	.9	
951 KHAR	23	0748E	0748	0750D	S24	E00	.489	17212	23.3	2D	-F	*	P	0748	70	.8	
952 KHAR	23	0811E		0811D	S18	W03	.398	17212	23.1		-F	*	P	0811	20	.2	E
953 ABST	23	0813	0818	0848	S07	W61	.884	17224	18.8	35	-F		C	0818	87		DK
954 KHAR	23	0824E		0824D	S16	E04	.368	17212	23.6		-F	*	P	0824	90	1.0	E
955 KHAR	23	1031E	1032	1034D	N20	W36	.615	17214	20.7	3D	-F		P	1032	40	.5	E
GRP88956	23	1034+1	1034+6	1055	N06	W75	.964	17201	17.8	21	-N				60		EG
KHAR	23	1034E	1034	1102D	N06	W76	.968	17201	17.7	28D	-N		P	1034	120		E
CATA	23	1035	1040	1055	N06	W74	.959	17201	17.9	20	-F		C	1040	28		
WEND	23	1035		1054	N07	W75	.964	17201	17.8	19	1N		C	1037	63		CG
ATHN	23	1035	1037	1046	N07	W82	.986	17201	17.3	11	1B	2	S	1037	64	2.7	
GRP88957	23	1044E	1047	1100D	N19	W36	.611	17214	20.7	16	-F				35	.4	E
KHAR	23	1044E	1047	1100D	N20	W36	.615	17214	20.7	16D	-N		P	1047	40	.5	E
WEND	23	1044E		1100D	N19	W36	.611	17214	20.7	16D	-F		C	1048	31	.4	
GRP88958	23	1220	1225+5	1241	N19	W37	.624	17214	20.7	21	-N				80	1.0	
CATA	23	1220	1225	1235	N18	W36	.607	17214	20.8	15	-F		C	1225	56	.7	
WEND	23	1227E		1243	N19	W37	.624	17214	20.7	16D	-N		C	1227	113	1.5	
ATHN	23	1228E	1230	1241	N25	W41	.694	17214	20.4	13D	-B	2	S	1230	80	.9	
	23	1301	1319	NO FLARE PATROL													
	23	1411	1415	NO FLARE PATROL													
GRP88959	23	1414E	1455	1519	N19	W40	.660	17214	20.6	65	-N						E
HOLL	23	1414E	1455	1519	N18	W42	.681	17214	20.4	65D	-N	3	C		81		
HTPR	23	1456E		1514D	N20	W38	.640	17214	20.8	18D	-F		C	1503	20	.3	E
960 HTPR	23	1521	1521	1535	N18	W39	.645	17214	20.7	14	-N		C	1521	40	.5	E
GRP88961	23	1551+2	1557	1610	N18	W38	.632	17214	20.8	19	-B				120	1.6	
HTPR	23	1551		1608D	N19	W39	.648	17214	20.7	17D	-B		C	1556	140	1.8	E
HOLL	23	1553	1557	1610	N18	W38	.632	17214	20.8	17	-B	3	C		114		D
	23	1642	1648	NO FLARE PATROL													
962 HOLL	23	1713	1714	1722	S18	W02	.396	17212	23.6	9	-F	3	C		31		
963 HOLL	23	2336	2336	0001	S16	E09	.391	17211	24.7	25	-F	3	C		25		
964 LEAR	24	0030	0036	0057	N20	W42	.687	17214	20.9	27	-N	3	C		24		
965 LEAR	24	0040	0042	0054	S16	W08	.384	17212	23.4	14	-F	3	C		25		
GRP88966	24	1337	1340	1415	S17	W03	.380	17211	24.3	38	-N						
RAMY	24	1337	1340	1410	S17	W02	.379	17211	24.4	33	-N	3	C		112		
HOLL	24	1407E	1417	1420	S17	W04	.383	17211	24.3	13D	-F	2	C		40		
967 RAMY	24	1350	1351	1400	S08	W77	.978	17224	18.8	10	-F	3	C				
GRP88968	24	1435+6	1443+0	1459	S20	W15	.487	17212	23.5	24	-F				50	.6	
HOLL	24	1435	1443	1502	S21	W15	.500	17212	23.5	27	-F	2	C		65		
RAMY	24	1441	1443	1455	S20	W16	.495	17212	23.4	14	-F	3	C		41		
969 RAMY	24	1450	1458	1502	S12	W03	.299	17211	24.4	12	-F	3	C		21		
970 CULG	24	2148	2149	2157	S08	W12	.306	17211	24.0	9	-F		C	2149	20	.2	
GRP88971	24	2150+3	2152+1	2200	S19	W17	.491	17212	23.6	10	-F				15	.2	
CULG	24	2150	2152	2159	S18	W18	.488	17212	23.6	9	-F		C	2152	10	.1	
HOLL	24	2153	2153	2201	S20	W16	.495	17212	23.7	8	-F	3	C		21		
972 HOLL	24	2219	2236	2323	S13	W07	.333	17211	24.4	64	-F	3	C		43		

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP88973	24	2220+9	2225+5	2320	N24	W57	.847	17214	20.7	60	1B				110	2.1	DJ
			2245														
HOLL	24	2220	2230	2327	N21	W57	.843	17214	20.7	67	-B	3	C		133		D
CULG	24	2223U	2225	2320	N25	W60	.872	17214	20.4	57D	1B		C	2225	100	2.0	JT
LEAR	24	2229	2245	2320	N24	W57	.847	17214	20.7	51	-N	3	C		97		
974 LEAR	24	2314	2314	2328	N22	E69	.931	17225	30.1	14	-F	3	C		24		
GRP88975	25	0212	0216	0230	S13	E50	.797	17226	28.8	18	-B						DG
PURP	25	0212	0216	0225	S14	E51	.810	17226	28.9	13	-B		C				DG
CULG	25	0217E	0217	0235	S12	E49	.784	17226	28.8	18D	-N		C	0217	50	.9	
976 LEAR	25	0219	0222	0226	N18	W57	.840	17214	20.8	7	-F	3	C		29		
977 LEAR	25	0308	0309	0316	S15	W08	.368	17211	24.5	8	-F	3	C		37		
978 LEAR	25	0311	0313	0321	S16	W20	.483	17212	23.6	10	-F	3	C		58		
GRP88979	25	0402+8	0411+0	0505	S20	W19	.519	17212	23.7	63	-F						F
			0420														
PURP	25	0402	0411	0537	S20	W18	.510	17212	23.8	95	-F		C				
CULG	25	0407	0420	0505	S20	W26	.585	17212	23.2	58	-N		C	0420	60	.7	F
LEAR	25	0410	0411	0415	S21	W19	.531	17212	23.7	5	-F	3	C		27		
GRP88980	25	0535	0541+1	0623	N20	W61	.875	17214	20.7	48	-B						
LEAR	25	0535	0542	0621	N19	W59	.858	17214	20.8	46	-B	2	C		40		
PURP	25	0537E	0541	0625D	N21	W63	.891	17214	20.5	48D	1N		C				
981 ABST	25	0650	0656	0732	N16	W66	.910	17208	20.3	42	-F		P	0656	87		DJ
982 ATHN	25	0711	0716	0753	N25	W63	.894	17214	20.6	42	-N	3	S	0716	64	1.4	
GRP88983	25	0759+5	0802+5	0845	N20	W61	.875	17214	20.8	46	1N				140	3.0	EJ
			0821+2														
ABST	25	0759	0802	0822D	N17	W59	.856	17214	20.9	23D	1N		P	0802	175	3.4	EJ
LEAR	25	0802	0821	0855	N19	W60	.866	17214	20.8	53	-N	3	C		29		
ATHN	25	0804	0807	0852	N22	W64	.899	17214	20.5	48	1N	3	S	0807	111	2.4	
PEKG	25	0817E	0829	0837D	N20	W60	.867	17214	20.8	20D	-N		P	0829	63	1.3	E
YUNN	25	0819	0823	0827	N20	W62	.883	17214	20.7	8	-N		C		80	1.7	
GRP88984	25	0942+1	0947+3	1039	N19	W60	.866	17214	20.9	57	1B						E
ATHN	25	0942E	0947	1039	N21	W64	.898	17214	20.6	57D	1B	3	S	0947	206	4.5	
LEAR	25	0942	0950	1010D	N19	W59	.858	17214	21.0	28D	2B	*	C		372		
HTPR	25	0943		0959D	N19	W59	.858	17214	21.0	16D	1B	*	C	0947	120	2.4	E
CATA	25	0955E	0955	1015D	N19	W62	.882	17214	20.8	20D	2F		P	0955	450	9.9	
	25	1726	2023	NO FLARE PATROL													
	25	2114	2121	NO FLARE PATROL													
GRP88985	25	2212+1	2214+1	2238	S13	W31	.584	17212	23.6	26	-N				110	1.3	
CULG	25	2212	2215	2238	S12	W32	.589	17212	23.5	26	-N		C	2215	120	1.6	
HOLL	25	2213	2214	2226D	S15	W30	.586	17212	23.7	13D	-B	3	C		97		
GRP88986	26	0000+1	0002+1	0013	S22	W35	.690	17212	23.4	13	-N						E
MITK	26	0000	0003	0013	S22	W35	.690	17212	23.4	13	-N		C				E
LEAR	26	0001	0002	0013	S22	W35	.690	17212	23.4	12	-N	3	C		55		
PEKG	26	0005E	0005	0005D	S22	W36	.699	17212	23.3		1N		P	0005	168	2.4	E
987 PURP	26	0031E	0033	0033D	S17	W39	.699	17212	23.1	2D	-N		V				D
GRP88988	26	0116+1	0120+2	0132	S12	E36	.638	17226	28.8	16	-N						EK
PEKG	26	0024	0122	0131	S12	E36	.638	17226	28.7	67	-F	*	C	0122	71	.9	E
PEKG	26	0024	0034	0131	S13	E36	.643	17226	28.7	67	-N	*	C	0034	67	.9	EK
CULG	26	0116	0120	0132U	S12	E36	.638	17226	28.8	16D	-F	*	C	0120	120	1.6	
LEAR	26	0117	0120	0139	S11	E37	.645	17226	28.8	22	-N	*	C		34		
GRP88989	26	0216+0	0216+4	0224	S21	W37	.703	17212	23.3	8	-F						E
LEAR	26	0216	0216	0223	S22	W36	.699	17212	23.4	7	-F	3	C		19		
PEKG	26	0216	0220	0225	S21	W38	.712	17212	23.2	9	-F		P	0220	88	1.3	E
990 LEAR	26	0359	0400	0410	S11	W26	.506	17211	24.2	11	-N	3	C		86		

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991 LEAR	26	0406	0406	0411	N21	W70	.937	17214	20.9	5	-F	3	C		11		
GRP88992	26	0431	0434+4	0450	S04	E51	.785	17232	30.0	19	-B				80	1.3	EJ
CULG	26	0431	0434	0447	S04	E50	.774	17232	29.9	16	-B		C	0434	100	1.7	
PEKG	26	0435E	0438	0450	S05	E51	.787	17232	30.0	15D	-B		P	0438	80	1.3	EJ
LEAR	26	0439E	0439U	0520	S04	E51	.785	17232	30.0	41D	-N	3	C		48		
993 LEAR	26	0644	0646	0702	N17	E56	.830	17228	30.5	18	-F	3	C		52		
GRP88994	26	0715	0717+1	0720	S17	W38	.688	17212	23.5	5	-N						E
LEAR	26	0715	0717	0720	S18	W38	.694	17212	23.5	5	-N	3	C		32		
PEKG	26	0717E	0718	0720	S17	W39	.699	17212	23.4	3D	-N		P	0718	84	1.3	E
	26	1006	1029	NO FLARE PATROL													
995 KANZ	26	1115	1119	1123D	S03	E46	.727	17232	29.9	8D	-F	3					
996 KANZ	26	1119	1119	1119	S19	W44	.761	17212	23.2		-N	3					D
	26	1124	1131	NO FLARE PATROL													
997 KANZ	26	1403	1407	1419	S03	E46	.727	17232	30.0	16	-N	2					
GRP88998	26	1437+0	1437+3	1454	S20	W47	.793	17212	23.1	17	-B				120	1.9	
KANZ	26	1437	1437	1445D	S19	W47	.789	17212	23.1	8D	1B	2					
RAMY	26	1437	1440	1451	S20	W45	.775	17212	23.2	14	-B	3	C		152		
HOLL	26	1443E	1443U	1456	S21	W47	.798	17212	23.1	13D	-N	3	C		92		
	26	1550	1624	NO FLARE PATROL													
999 HOLL	26	1637	1638	1652	S11	W32	.583	17211	24.3	15	-F	3	C		65		
0 HOLL	26	1728	1729	1753	S19	W42	.741	17212	23.6	25	-F	3	C		38		
1 HOLL	26	1737	1740	1753	S03	E42	.678	17232	29.9	16	-F	3	C		23		
2 HOLL	26	1826	1826	1858D	S18	W41	.725	17212	23.7	32D	-N	3	C		141		
3 PALE	26	2014	2016	2022	S14	W34	.625	17211	24.3	8	-F	3	C		40		
4 CULG	26	2018E	2018U	2030	S05	E40	.658	17232	29.8	12D	?N		P	2018	200	2.6	
			IMP.1 NO : BIGB RAMY PALE														
5 CULG	26	2024	2029	2038	S10	W40	.676	17212	23.8	14	-F		C	2029	30	.4	
6 CULG	26	2149	2151	2157	S21	W46	.789	17212	23.5	8	-F		C	2151	40	.6	
GRP89007	26	2206+2	2210+1	2221	S16	W51	.816	17212	23.1	15	1B				170	2.9	H
CULG	26	2206	2210	2217	S15	W50	.803	17212	23.2	11	1B		C	2210	150	2.6	H
BIGB	26	2208	2211	2225	S17	W53	.837	17212	22.9	17	1B	1	C	2211	190	3.3	
8 CULG	26	2224	2225	2232	S05	E40	.658	17232	29.9	8	-N		C	2225	40	.5	
GRP89009	26	2239+2	2241+3	2251	S04	E40	.655	17232	29.9	12	-F				60	.8	F
CULG	26	2239	2241	2252	S05	E40	.658	17232	29.9	13	-N		C	2241	90	1.2	
LEAR	26	2241	2242	2249	S04	E40	.655	17232	29.9	8	-F	2	C		45		
PALE	26	2242E	2244U	2250	S02	E40	.650	17232	29.9	8D	-F	3	C		62		
MANI	26	2243E	2243U	2252D	S04	E39	.643	17232	29.9	9D	-F	1	V		50	.7	F
GRP89010	26	2242+0	2251+4	2325	S11	W41	.692	17212	23.9	43	-F				20	.3	
CULG	26	2242	2252	2338	S10	W40	.676	17212	23.9	56	-N		C	2252	20	.3	
LEAR	26	2242	2255	2311	S11	W41	.692	17212	23.9	29	-F	2	C		88		
MANI	26	2251E	2251U	2305D	S12	W42	.708	17212	23.8	14D	-F	1	V		15	.2	
PALE	26	2253E	2306U	2306D	S18	W45	.766	17212	23.6	13D	-F	3	C		38		

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GRP89011	27	0105+1	0115>9	0200	S13	W36	.642	17211	24.3	55	1N				270	3.5	FK
CULG	27	0105	0123	0211U	S13	W37	.654	17211	24.3	66D	2N		C	0123	400	5.2	FK
LEAR	27	0106	0125	0148	S13	W36	.642	17211	24.3	42	1N	3	C		272		
MANI	27	0110E	0115U	0126D	S14	W36	.648	17211	24.3	16D	-F	1	V		100	1.4	F
MITK	27	0115	0122	0221	S12	W35	.625	17211	24.4	66	-N		C				E
PURP	27	0116E	0118	0144	S13	W35	.631	17211	24.4	28D	1N		C				
PALE	27	0118E	0125U	0135D	S14	W36	.648	17211	24.4	17D	-F	3	C		46		
GRP89012	27	0117+1	0118+1	0140	S04	E38	.629	17232	29.9	23	-N				60	.8	E
CULG	27	0117	0119	0140	S04	E38	.629	17232	29.9	23	-N		C	0119	70	.9	
LEAR	27	0118	0119	0152	S04	E38	.629	17232	29.9	34	-N	3	C		60		
PURP	27	0118E	0118	0132	S05	E39	.645	17232	30.0	14D	-N		C				E
GRP89013	27	0129>9	0145+1	0206	N23	E40	.677	17225	30.1	37	-N						FIK
CULG	27	0129	0145	0218D	N21	E39	.658	17225	30.0	49D	1N		P	0145	350	4.5	FIK
LEAR	27	0146	0146	0153	N26	E41	.701	17225	30.1	7	-F	3	C		20		
GRP89014	27	0155>9	0216+7	0257	N18	E35	.597	17225	29.7	62	1N				240	3.0	E
LEAR	27	0155	0216	0244	N16	E33	.563	17225	29.6	49	1N	3	C		189		
YUNN	27	0213	0222	0230	N17	E33	.567	17225	29.6	17	1N		C		321	4.1	
MANI	27	0218E	0221	0230D	N20	E35	.605	17225	29.7	12D	1F	1	V		200	2.6	
MITK	27	0218	0220	0310	N17	E35	.593	17225	29.7	52	1N		C		220		E
PALE	27	0221E	0223U	0305	N20	E36	.618	17225	29.8	44D	1F	3	C		221		
PURP	27	0222E	0223	0301	N17	E37	.618	17225	29.9	39D	2B		C	0223	944	12.1	
15 LEAR	27	0300	0303	0307	S04	E37	.616	17232	29.9	7	-F	3	C		22		
16 LEAR	27	0335	0344	0356	S04	E37	.616	17232	29.9	21	-F	3	C		27		
GRP89017	27	0617+1	0621+3	0632	S20	W52	.837	17212	23.4	15	-F				70	1.3	
LEAR	27	0617	0621	0636	S21	W49	.815	17212	23.6	19	-N	3	C		46		
ABST	27	0618	0621	0627	S20	W51	.828	17212	23.4	9	-F		C	0621	87	1.5	D
ABST	27	0622	0624	0628	S17	W58	.877	17212	22.9	6	-F		C	0624	79	1.6	D
GRP89018	27	0719+3	0725+5	0743	S04	E34	.575	17232	29.9	24	-N				160	2.0	J
ABST	27	0719	0726	0738D	S05	E34	.579	17232	29.9	19D	-N		P	0726	105	1.3	DJ
LEAR	27	0722	0730	0807	S04	E34	.575	17232	29.9	45	-B	3	C		147		
PEKG	27	0723E	0725	0740	S04	E34	.575	17232	29.9	17D	1N		P	0725	189	2.4	E
YUNN	27	0730E	0730	0743	S04	E33	.561	17232	29.8	13D	1N		P		193	2.4	
GRP89019	27	0822+9	0826+1	0850	N18	E31	.545	17225	29.7	28	-F				60	.7	DJ
			0835														
ABST	27	0822E	0826	0835	N16	E34	.576	17225	29.9	13D	-F		P	0826	87	1.1	DJ
LEAR	27	0825	0827	0851	N18	E29	.518	17225	29.5	26	-F	3	C		36		
KANZ	27	0831	0835	0850	N19	E31	.550	17225	29.7	19	-F	3					
20 CATA	27	0845	0850	0900	N30	E90	.999	17235	3.1	15	?F		C	0850	68		
			IMP.1 NO : LEAR KANZ WEND ABST														
21 KANZ	27	0908	0908	0912	S04	E31	.533	17232	29.7	4	-F	3					
22 CATA	27	0925	0935	0940	N18	W90	1.000	17214	20.6	15	-F		C	0935	28		
23 YUNN	27	0945	0950	0955	N06	E56	.826	17231	31.6	10	-F		C		64	.9	
GRP89024	27	1009+1	1009+3	1025	N20	E29	.530	17225	29.6	16	-N						
KANZ	27	1009	1009	1025	N20	E28	.517	17225	29.5	16	-N	3					
WEND	27	1010	1012	1025	N21	E30	.549	17225	29.7	15	-N		C	1012	44	.6	
GRP89025	27	1148	1151	1158	N29	E87	.996	17235	3.0	10	-N						
KANZ	27	1148	1151	1155	N30	E87	.996	17235	3.0	7	-N	3					
WEND	27	1151E		1200D	N29	E87	.996	17235	3.0	9D	-N		C	1155	13		
26 KANZ	27	1155	1159	1218	N23	W90	.999	17214	20.7	23	-N	3					
27 KANZ	27	1218	1222	1247	N32	E85	.993	17235	2.9	29	-N	3					
28 WEND	27	1310E		1343D	N28	E86	.995	17235	3.0	33D	-N		C	1317	9		
29 HOLL	27	1544	1550	1601	N08	E54	.806	17231	31.7	17	-F	2	C		21		

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30 HOLL	27	1634	1655	1734	N07	E53	.796	17231	31.7	60	-F	3	C		20		
31 HOLL	27	1638	1645	1708	S04	E30	.519	17232	29.9	30	-N	2	C		131		
32 HOLL	27	1723	1727	1808	S22	W55	.867	17212	23.6	45	-N	2	C		84		
33 HOLL	27	1739	1739	1754	N08	E53	.796	17231	31.7	15	-F	3	C		22		
34 HOLL	27	1812	1822	1834	S21	W55	.864	17212	23.6	22	-F	3	C		52		
GRP89035	27	2149+8	2203	2234	S17	W59	.885	17212	23.5	45	-B						
			2213														
CULG	27	2149U	2213	2236	S17	W58	.877	17212	23.6	47D	1N		C	2213	120	2.4	
BIGB	27	2157	2203	2232	S18	W60	.894	17212	23.4	35	-B	2	C	2203	80	1.6	
36 CULG	27	2222	2234	2248	S04	E26	.461	17232	29.9	26	-F		C	2234	80	.9	
37 CULG	27	2250	2258	2309	S06	W29	.514	17223	25.8	19	-N		C	2258	50	.6	
38 LEAR	27	2310	2319	2343	N07	E50	.763	17231	31.7	33	-B	3	C		41		D
GRP89039	28	0021	0030+2	0046	N19	E22	.434	17225	29.7	25	-N				100	1.1	
CULG	28	0021	0032	0057	N19	E22	.434	17225	29.7	36	-N		C	0032	90	1.0	
YUNN	28	0030E	0030	0035	N19	E23	.447	17225	29.7	5D	-N		P		113	1.3	
40 CULG	28	0033	0037	0049	N30	E78	.975	17235	2.9	16	-F		C	0037	40		
GRP89041	28	0048+1	0051+1	0101	S04	E24	.431	17232	29.8	13	-N				60	.7	
CULG	28	0048	0051	0101	S04	E25	.446	17232	29.9	13	-N		C	0051	80	.9	T
LEAR	28	0049	0052	0100	S04	E24	.431	17232	29.8	11	-N	3	C		45		
42 CULG	28	0103	0117	0148	N18	E38	.635	17228	30.9	45	-F		C	0117	80	1.0	
GRP89043	28	0109+5	0114+1	0123	S04	E25	.446	17232	29.9	14	-N				80	.9	E
CULG	28	0109	0115	0123	S04	E25	.446	17232	29.9	14	-N		C	0115	80	.9	T
YUNN	28	0110	0115	0126	S05	E25	.451	17232	29.9	16	-N		C		96	1.1	E
LEAR	28	0114	0114	0123	S04	E24	.431	17232	29.9	9	-F	3	C		31		
44 LEAR	28	0139E	0144	0201	N19	E20	.409	17225	29.6	22D	-N	3	C		46		
45 LEAR	28	0139E	0144	0205	S20	W60	.898	17212	23.6	26D	-N	3	C		49		
46 CULG	28	0155	0200	0210	N17	E49	.760	17229	31.8	15	-F		C	0200	50	.8	
GRP89047	28	0213+0	0225+1	0249	S19	W62	.910	17212	23.4	36	1N				90	2.1	
LEAR	28	0213	0226	0240	S20	W61	.905	17212	23.5	27	-N	3	C		81		
CULG	28	0213	0225	0257	S19	W63	.916	17212	23.4	44	1N		C	0225	100	2.5	
48 YUNN	28	0235	0239	0242	S04	E25	.446	17232	30.0	7	-N		C		48	.6	
GRP89049	28	0239+7	0250	0308	S15	W51	.812	17211	24.3	29	-N						E
			0258														
CULG	28	0239	0258	0320	S15	W52	.821	17211	24.2	41	1N		C	0258	140	2.4	
YUNN	28	0246	0250	0255	S16	W51	.815	17211	24.3	9	-N		C		80	1.5	E
50 CULG	28	0243	0245	0251	S04	E24	.431	17232	29.9	8	-F		C	0245	70	.8	T
51 CULG	28	0258	0304	0337	N19	E21	.422	17225	29.7	39	?N		C	0304	200	2.2	F
			IMP.1 NO : MITK YUNN LEAR														
GRP89052	28	0305+0	0307+2	0311D	N19	W90	1.000		21.4	6	?N						AW
YUNN	28	0305	0309	0346	N19	W90	1.000		21.4	41	?B		C		643		WA
			IMP.3 IMP.S														
MITK	28	0305	0307	0311	N20	W90	1.000		21.4	6	-N		C				
GRP89053	28	0350+5	0355+2	0415	S04	E23	.416	17232	29.9	25	1N						E
CULG	28	0350	0356	0428	S04	E23	.416	17232	29.9	38	1B		C	0356	180	2.0	T
PURP	28	0351	0355	0414	S03	E21	.381	17232	29.7	23	1B		C				
MITK	28	0351	0357	0421	S04	E23	.416	17232	29.9	30	-N		C				E
LEAR	28	0353	0355	0410	S04	E22	.401	17232	29.8	17	-N	3	C		99		
YUNN	28	0355	0356	0405	S04	E23	.416	17232	29.9	10	1N		C		321	3.6	E

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Time (UT)	Measurement Appar (Disk)	Corr (Sq Deg)	Remarks
GRP89054	28	0352+3	0356+2	0403	S13	W53	.825	17211	24.2	11	-F				35	.6	
CULG	28	0352	0358	0408	S11	W53	.820	17211	24.2	16	-N		C	0358	20	.3	
YUNN	28	0355	0356	0358	S16	W53	.833	17211	24.2	3	-F		C		48	.9	
GRP89055	28	0407+0	0409+1	0413	S20	W61	.905	17212	23.6	6	-F				40	.9	
LEAR	28	0407	0410	0414	S21	W62	.914	17212	23.5	7	-N	3	C		44		
CULG	28	0407	0409	0412	S19	W61	.903	17212	23.6	5	-F		C	0409	40	1.0	
56 LEAR	28	0421	0426	0435	N07	E47	.729	17231	31.7	14	-N	3	C		51		
GRP89057	28	0425+6	0432+5	0450	S19	W63	.916	17212	23.5	25	-N				80		
LEAR	28	0425	0432	0452	S19	W65	.929	17212	23.3	27	-N	*	C		67		
CULG	28	0431	0437	0447	S19	W61	.903	17212	23.6	16	1N	*	C	0437	100	2.5	
58 CULG	28	0426	0431	0503	N19	E20	.409	17225	29.7	37	-F		C	0431	40	.4	FK
59 LEAR	28	0443	0446	0449	N29	E74	.960	17235	2.7	6	-F	3	C				
60 CULG	28	0444U	0450	0456	N08	E47	.729	17231	31.7	12D	-F		C	0450	40	.6	T
61 LEAR	28	0458	0459	0502	N30	E78	.975	17235	3.1	4	-F	3	C		12		
62 CULG	28	0514	0519	0528	S03	E24	.426	17232	30.0	14	-N		C	0519	50	.6	T
63 CULG	28	0530	0533	0603	N20	E21	.430	17225	29.8	33	-F		C	0533	100	1.1	T
GRP89064	28	0744+1	0744+2	0753	N22	E17	.404	17225	29.6	9	-F				50	.5	E
PURP	28	0744E	0744	0749	N22	E17	.404	17225	29.6	5D	-N		C				E
HTPR	28	0744	0746	0754	N22	E17	.404	17225	29.6	10	-F		C	0746	40	.4	E
LEAR	28	0744	0745	0749	N22	E18	.415	17225	29.7	5	-F	3	C		21		
CATA	28	0745	0745	0755D	N22	E17	.404	17225	29.6	10D	-F		P	0745	56	.6	
YUNN	28	0745	0746	0755	N22	E18	.415	17225	29.7	10	-F		C		129	1.4	
65 YUNN	28	0822	0825	0830	N30	E70	.942	17235	2.6	8	-F		C		48		
66 YUNN	28	0845	0848	0859	N28	E72	.950	17235	2.8	14	-N		C		48		
67 LEAR	28	0845	0850	0902	S19	W64	.923	17212	23.6	17	-N	3	C		37		
GRP89068	28	0923+9	0930 0937+3	0959	N29	E72	.951	17235	2.8	36	-N						DG
WEND	28	0923E		1001D	N28	E73	.955	17235	2.9	38D	-N		C	0934	12		G
YUNN	28	0927	0930	0940	N29	E71	.946	17235	2.7	13	-N		C		64		
KANZ	28	0928	0940	1000	N31	E71	.947	17235	2.7	32	-N	3					
HTPR	28	0930	0939	1003	N30	E74	.960	17235	2.9	33	-B		C	0930	30		
LEAR	28	0930	0938	0955	N29	E69	.936	17235	2.6	25	-B	3	C		22		D
BERN	28	0932	0937	0958	N28	E75	.964	17235	3.0	26	-N				50		
69 CATA	28	0930	0930	0935	N20	W90	1.000		21.6	5	-F		C	0930	39		
GRP89070	28	1020+1	1020+4	1041	S04	E21	.387	17232	30.0	21	-N				50	.5	E
KANZ	28	1020	1020	1035	S03	E21	.381	17232	30.0	15	-N	3					
WEND	28	1020	1022	1041	S04	E20	.372	17232	29.9	21	-N		C	1022	44	.5	
HTPR	28	1021	1024	1046	S04	E21	.387	17232	30.0	25	-F		C	1024	60	.6	E
GRP89071	28	1235+5	1239+3	1300	S04	E19	.357	17232	29.9	25	-N				120	1.3	EK
KANZ	28	1235	1239	1258	S03	E20	.366	17232	30.0	23	-N	3					
WEND	28	1238	1242	1303	S04	E19	.357	17232	30.0	25	-N		C	1242	31	.3	E
HTPR	28	1239	1241	1300	S04	E20	.372	17232	30.0	21	-B		C	1241	120	1.2	EK
CATA	28	1240	1240	1245D	S04	E19	.325	17232	30.0	5D	-F		P	1240	140	1.6	
72 HTPR	28	1314	1322	1326	N20	E13	.338	17225	29.5	12	-F		C	1322	10	.1	
73 KANZ	28	1327	1327	1335	N08	E41	.654	17231	31.6	8	-F	3					
GRP89074	28	1402>9	1413+3	1433	N30	E67	.925	17235	2.6	31	-N				35		G
HTPR	28	1402	1413	1438	N30	E67	.925	17235	2.6	36	-N		C	1413	50	1.2	
WEND	28	1404	1413	1433D	N28	E73	.955	17235	3.1	29D	-N		C	1413	19		G
KANZ	28	1412	1416	1428	N30	E67	.925	17235	2.6	16	-N	3					
75 HTPR	28	1440	1446	1500	N30	E67	.925	17235	2.6	20	-N		C	1446	70	1.7	E

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Time (UT)	Measurement Appar (Disk)	Corr (Sq Deg)	Remarks
76 PALE	28	1727E	1728U	1741	N09	E39	.628	17231	31.7	14D	-F	3	C		29		
77 PALE	28	1808	1812	1818	N09	E38	.615	17231	31.6	10	-F	3	C		29		
78 PALE	28	1810	1810	1813	N30	E65	.914	17235	2.6	3	-F	3	C		31		
79 BIGB	28	1950	1953	2003	N02	E90	1.000	17240	4.6	13	-B	2	C	1953	40		
GRP89080	28	2024+0	2029+1	2044	N18	E27	.493	17228	30.9	20	-N						
			2037														
CULG	28	2024E	2037	2041	N18	E27	.493	17228	30.9	17D	-B		C	2037	140	1.6	
BIGB	28	2024	2030	2059	N17	E27	.487	17228	30.9	35	-N	2	C	2030	60	.7	
PALE	28	2024E	2029	2044	N19	E26	.486	17228	30.8	20D	-N	3	C		139		
81 CULG	28	2053	2058	2105	S19	W71	.960	17212	23.5	12	-F		C	2058	20		
82 CULG	28	2101U	2120U	2240U	S02	E08	.182	17232	29.5	99D	-F		P	2120	60	.6	
GRP89083	28	2129+6	2140	2237	S19	W72	.965	17212	23.5	68	1N				150		D
			2221+5														
BOUL	28	2129	2225	2235	S20	W72	.965	17212	23.5	66	1N	3	C		150		D
CULG	28	2135	2140	2149	S18	W71	.959	17212	23.6	14	-N		C	2140	50		
CULG	28	2213	2221	2239	S18	W71	.959	17212	23.6	26	2B		C	2221	200		
PALE	28	2218	2226	2234	S21	W72	.966	17212	23.5	16	1F	2	C				
BIGB	28	2219	2221	2253	S18	W74	.972	17212	23.4	34	-N	2	C	2221	60		
84 CULG	28	2140	2145	2210	N08	E36	.586	17231	31.6	30	-N		C	2145	80	1.0	F
85 CULG	28	2154	2200	2217	N28	E64	.905	17235	2.7	23	-F		C	2200	60	1.5	
86 CULG	28	2227	2229	2241	S13	W63	.907	17211	24.2	14	?N		C	2229	90		
		IMP.1 NO : PALE BIGB															
87 CULG	28	2235	2239	2249	N20	E10	.310	17225	29.7	14	-N		C	2239	90	.9	
GRP89088	28	2340+5	2346+5	0008	S03	E10	.219	17232	29.7	28	-N				90	.9	
CULG	28	2340	2346	0004	S03	E10	.219	17232	29.7	24	-N		C	2346	120	1.2	
LEAR	28	2345	2351	0011	S04	E11	.243	17232	29.8	26	-N	3	C		64		
89 CULG	29	0004	0010	0016	N17	E70	.937	17237	3.3	12	-F		C	0010	30		
GRP89090	29	0018+1	0019+4	0043	N07	E35	.572	17231	31.6	25	-N				35	.4	D
CULG	29	0008	0021	0047	N08	E35	.573	17231	31.6	39	-N	*	C	0021	70	.9	
LEAR	29	0018	0019	0041	N07	E35	.572	17231	31.6	23	-N	*	C		26		
PALE	29	0019	0023	0032	N09	E36	.588	17231	31.7	13	-F	*	C		24		
PEKG	29	0022E	0022	0045	N07	E35	.572	17231	31.6	45	-B	*	P	0022	42	.5	D
GRP89091	29	0056+8	0105+5	0118	N18	E23	.440	17228	30.8	22	-N				100	1.1	E
CULG	29	0056	0105	0131	N18	E23	.440	17228	30.8	35	-N		C	0105	100	1.1	
PEKG	29	0102	0108	0118	N17	E23	.433	17228	30.8	16	-N		P	0108	105	1.2	E
PALE	29	0104	0110	0113	N18	E23	.440	17228	30.8	9	-F	2	C		23		
GRP89092	29	0142+3	0145+7	0205	N19	E08	.281	17225	29.7	23	-F				30	.3	D
CULG	29	0142	0152	0205	N20	E09	.303	17225	29.7	23	-N		C	0152	80	.8	
PEKG	29	0145	0148	0158	N19	E08	.281	17225	29.7	13	-F		P	0148	17	.2	D
LEAR	29	0145	0145	0206	N19	E07	.273	17225	29.6	21	-F	3	C		29		
GRP89093	29	0147+0	0149+4	0158	S18	W74	.972	17212	23.5	11	-N				50		D
CULG	29	0147	0150	0158	S18	W78	.985	17212	23.2	11	-B		C	0150	40		
LEAR	29	0147	0149	0200	S19	W74	.972	17212	23.5	13	-N	3	C		46		
PEKG	29	0152E	0153	0156	S17	W74	.971	17212	23.5	4D	-N		P	0153	50		D
94 CULG	29	0223	0225	0236	N08	E34	.558	17231	31.6	13	-N		C	0225	160	1.9	
GRP89095	29	0321+4	0333+2	0345	N19	E06	.266	17225	29.6	24	-F				70	.7	D
CULG	29	0321	0335	0351	N19	E05	.261	17225	29.5	30	-F		C	0335	60	.6	
PEKG	29	0325	0333	0339	N20	E08	.295	17225	29.7	14	-N		P	0333	84	.9	D
96 MITK	29	0355	0400	0428	N03	E90	1.000	17240	4.9	33	?N		C		110		
		IMP.1 NO : CULG PEKG LEAR															

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97	CULG	29	0424	0430	0439	N28	E62	.892	17235	2.8	15	-F		C	0430	30	.7	
98	CULG	29	0454	0456	0506	S20	W79	.989	17212	23.3	12	?F		C	0456	60		
				IMP.1 NO : LEAR PEKG MITK														
99	CULG	29	0508	0512	0518	N28	E61	.885	17235	2.8	10	-N		C	0512	40	.9	
100	CULG	29	0510	0519	0533	S13	W67	.933	17211	24.2	23	-N		C	0519	50		
GRP89101		29	0528+7	0538+2	0550	N08	E33	.544	17231	31.7	22	-N				70	.8	D
	MITK	29	0513	0538	0548	N09	E33	.545	17231	31.7	35	-N		C				D
	CULG	29	0528	0540	0558	N08	E33	.544	17231	31.7	30	1B		C	0540	210	2.5	
	LEAR	29	0532	0539	0550	N08	E34	.558	17231	31.8	18	-B	3	C		71		D
	PEKG	29	0535	0540	0550	N09	E34	.559	17231	31.8	15	-N		P	0540	46	.6	E
GRP89102		29	0604+7	0617+1	0626	S19	W79	.988	17212	23.3	22	1N				120		DK
	CULG	29	0604	0617	0626	S20	W80	.991	17212	23.3	22	1N		C	0617	90		K
	LEAR	29	0605	0618	0630	S18	W76	.979	17212	23.6	25	-N	3	C				
	TACH	29	0611	0617	0626	S19	W79	.988	17212	23.3	15	1F		C	0617	159		D
GRP89103		29	0655	0720 0800	0803	N02	E84	.994	17240	4.6	68	1F						A
	CATA	29	0655	0720	0820	N03	E90	1.000	17240	5.0	85	1F		P	0720	112		
	WEND	29	0733E		0803D	N02	E85	.996	17240	4.7	30D	-F		C	0733	25		
	KANZ	29	0734E		0749	N04	E83	.992	17240	4.5	15D	-F	3					
	YUNN	29	0758E	0800	0802D	N02	E81	.987	17240	4.4	4D	-N		P		32		A
GRP89104		29	0749	0759+1	0805	N29	E60	.880	17235	2.8	16	-F				25	.5	
	LEAR	29	0749	0759	0807	N29	E61	.887	17235	2.9	18	-F	3	C		20		
	YUNN	29	0758E	0800	0802	N29	E60	.880	17235	2.8	4	-N		C		32	.7	
GRP89105		29	0831+5	0835+3	0849	N19	E06	.266	17225	29.8	18	-N				80	.8	E
	KANZ	29	0831	0835	0843	N19	E04	.256	17225	29.7	12	-N	3					
	HTPR	29	0834	0837	0847	N15	E08	.224	17225	30.0	13	-B		C	0837	80	.8	E
	LEAR	29	0834	0836	0853	N19	E06	.266	17225	29.8	19	-N	3	C		85		
	BUCA	29	0835E		0857	N19	E05	.261	17225	29.7	22D	-N		C	0835	86	.9	E
	WEND	29	0836	0838	0847	N19	E06	.266	17225	29.8	11	-B		C	0838	75	.8	
106	CATA	29	0840	0845	0900D	N03	E90	1.000	17240	5.1	20D	?F		P	0845	56		
				IMP.1 NO : LEAR HTPR WEND KANZ														
107	YUNN	29	0910	0911	0926	N08	E30	.500	17231	31.6	16	?N		C		241	2.9	
				IMP.1 NO : LEAR HTPR KANZ														
GRP89108		29	0925+3	0925+5	0934	N29	E60	.880	17235	2.9	9	-F				35	.8	
	KANZ	29	0925	0925	0933	N32	E58	.871	17235	2.7	8	-F	3					
	YUNN	29	0926	0928	0928D	N29	E60	.880	17235	2.9	2D	-N		P		48	1.0	
	LEAR	29	0928	0930	0934	N29	E62	.894	17235	3.0	6	-F	3	C		17		
109	HTPR	29	0942	0947	1000	N07	E31	.514	17231	31.7	18	-F		C	0947	20	.2	
110	CATA	29	1020	1030	1035	N02	E90	1.000	17240	5.2	15	?F		C	1030	56		
				IMP.1 NO : HTPR KANZ														
GRP89111		29	1025+3	1029+3	1044	N17	E19	.380	17228	30.9	19	-N						E
	KANZ	29	1025	1029	1041	N17	E19	.380	17228	30.9	16	-N	3					
	HTPR	29	1028	1032	1046	N17	E20	.393	17228	30.9	18	-N		C	1032	70	.7	E
GRP89112		29	1137+7	1142+4	1155	S02	E06	.156	17232	29.9	18	-N				90	.9	
	KANZ	29	1137	1142	1153	S02	E06	.156	17232	29.9	16	-N	*					
	CATA	29	1140	1145	1155	S02	E06	.114	17232	29.9	15	-F		C	1145	56	.6	
	HTPR	29	1140	1144	1155	S03	E06	.169	17232	29.9	15	-B	*	C	1144	100	1.0	E
	LVOV	29	1141	1145	1200	S02	E06	.156	17232	29.9	19	-N	*	C	1145	200	2.1	D
	WEND	29	1144E		1155	S03	E06	.169	17232	29.9	11D	-N	*	C	1144	100	1.0	
	ATHN	29	1144	1146	1154	S02	E06	.156	17232	29.9	10	-B	*	S	1146	70	.7	
113	CATA	29	1230	1230	1235	N17	E61	.874	17237	3.1	5	-F		C	1230	28	.6	
114	WEND	29	1251	1253	1302	N08	E31	.515	17231	31.9	11	-F		C	1253	44	.5	

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Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Time (UT)	Measurement Appar (Disk)	Corr (Sq Deg)	Remarks
GRP89115	29	1343+3	1349+3	1410	N08	E29	.485	17231	31.7	27	-N				90	1.0	E
KANZ	29	1343	1351	1403D	N08	E29	.485	17231	31.7	20D	-N	2					
HTPR	29	1345	1349	1410	N07	E29	.484	17231	31.7	25	-F		C	1349	60	.7	E
WEND	29	1346	1352	1409	N08	E30	.500	17231	31.8	23	-N		C	1352	125	1.5	
HOLL	29	1403E	1411	1422	N09	E28	.471	17231	31.7	19D	-F	2	C		23		
116 HOLL	29	1434	1444	1445	N23	E00	.314	17225	29.6	11	-F	3	C		27		
117 HOLL	29	1505	1506	1541	N04	E82	.990	17240	4.8	36	-F	3	C				
118 BOUL	29	1526E	1536	1542	N28	E55	.840	17235	2.8	16D	-B	3	C		80		
119 HOLL	29	1550	1551	1600	S03	E05	.160	17232	30.0	10	-F	3	C		24		
120 HOLL	29	1638	1640	1656	N05	E83	.992	17240	4.9	18	-F	3	C				
121 HOLL	29	1643	1643	1657	S23	W82	.995	17212	23.5	14	-F	3	C				
122 CULG	29	2114E	2114U	2114D	N31	E57	.862	17235	3.2		-F		P	2114	50	1.0	
123 CULG	29	2123	2126	2143	S17	W19	.480	17226	28.5	20	-B		C	2126	100	1.2	T
GRP89124	29	2159+3	2222+3	2238	N14	E08	.211	17228	30.5	39	-N						FK
CULG	29	2159	2222	2237	N14	E08	.211	17228	30.5	38	-N		C	2222	100	1.0	FK
HOLL	29	2202	2225	2239	N15	E08	.224	17228	30.5	37	-N	3	C		31		
GRP89125	29	2318+3	2322+7	2349	S17	W19	.480	17226	28.5	31	-N				140	1.6	EH
HOLL	29	2157	2323	2352D	S18	W16	.464	17226	28.7	115D	-F	*	C		112		
MITK	30	2318E	2322	0000	S17	W18	.469	17226	29.6	42D	-N		C				EH
CULG	29	2320	2323	2333	S17	W20	.490	17226	28.5	13	-N	*	C	2323	120	1.4	T
LEAR	29	2321	2329	2336	S17	W19	.480	17226	28.5	15	-F	*	C		154		
PEKG	29	2321E	2325	0016	S18	W19	.491	17226	28.5	55D	1N	*	P	2325	189	2.2	E
GRP89126	29	2323+7	2331+1	2341	S03	W03	.144	17232	29.7	18	-N						D
HOLL	29	2323	2331	2350	S04	W04	.166	17232	29.7	27	-N	3	C		152		
PEKG	29	2327	2331	2335	S03	W03	.144	17232	29.8	8	-N		C	2331	42	.4	D
LEAR	29	2328	2332	2348	S04	W02	.155	17232	29.8	20	-B	3	C		109		D
CULG	29	2328	2331	2340	S03	W03	.144	17232	29.8	12	-N		C	2331	60	.6	
PALE	29	2330	2332	2336	S03	W02	.138	17232	29.8	6	-N	2	C		43		
127 CULG	29	2337	2340	2347	N13	E04	.160	17228	30.3	10	-F		C	2340	50	.5	
128 CULG	30	0056	0101	0108	S14	W79	.986	17211	24.1	12	-F		C	0101	40		
129 CULG	30	0059	0110	0126	N18	W10	.286	17225	29.3	27	-B	*	C	0110	40	.4	H
GRP89130	30	0115>9	0125+3	0141	N23	00	.316	17225	30.1	26	-F				40	.4	
CULG	30	0115	0128	0153	N23	E01	.316	17225	30.1	38	-F	*	C	0128	50	.5	
LEAR	30	0125	0125	0129	N23	E00	.316	17225	30.1	4	-F	*	C		25		
GRP89131	30	0116+4	0121+3	0132D	N31	E50	.807	17235	2.8	16	-N						F
CULG	30	0116	0121	0205	N32	E50	.810	17235	2.8	49	1N		C	0121	180	3.1	F
LEAR	30	0120	0124	0132	N30	E50	.804	17235	2.8	12	-N	3	C		27		
GRP89132	30	0124+2	0126+0	0137	S03	W02	.137	17232	29.9	13	-N						
CULG	30	0124	0126	0140	S03	W03	.142	17232	29.8	16	-B		C	0126	160	1.6	
LEAR	30	0126	0126	0133	S03	W01	.133	17232	30.0	7	-N	3	C		60		
133 CULG	30	0147	0152	0202	S17	W21	.499	17226	28.5	15	-N		C	0152	100	1.2	T
GRP89134	30	0203+0	0206+1	0228	S03	W03	.142	17232	29.9	25	-N				110	1.1	D
CULG	30	0203	0207	0228	S03	W04	.149	17232	29.8	25	-B		C	0207	120	1.2	
LEAR	30	0203	0207	0233D	S03	W02	.137	17232	29.9	30D	-B	3	C		107		D
MANI	30	0206E	0206U	0213	S02	W03	.126	17232	29.9	7D	-F	1	V		50	.5	
135 CULG	30	0213	0229	0309	S17	W21	.499	17226	28.5	56	-N		C	0229	100	1.2	TF
GRP89136	30	0223+9	0230+3	0248	N15	E07	.216	17228	30.6	25	-F						
CULG	30	0223	0230	0253	N14	E07	.202	17228	30.6	30	-N		C	0230	80	.8	
CULG	30	0223	0230	0250	N15	E06	.207	17228	30.5	27	-F		C	0230	120	1.2	
LEAR	30	0232	0233	0242	N15	E08	.226	17228	30.7	10	-F	3	C		34		

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No.	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp		Obs Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
137	CULG	30	0254	0257	0305	N18	W11	.295	17225	29.3	11	-N		C	0257	40	.4	
138	CULG	30	0258	0302	0316	N21	E51	.789	17237	2.9	18	?F		C	0302	130	2.2	
				IMP.1 NO : LEAR MITK														
GRP89139		30	0309+2	0314+6	0335	S03	W04	.149	17232	29.8	26	-N				110	1.1	E
	CULG	30	0309	0314	0335	S03	W04	.149	17232	29.8	26	-B		C	0314	160	1.6	
	LEAR	30	0310	0320	0342	S03	W04	.149	17232	29.8	32	-N	3	C		113		
	MITK	30	0311	0318	0330	S02	W04	.134	17232	29.8	19	-N		C				E
	MANI	30	0318E	0318U	0329D	S03	W04	.149	17232	29.8	11D	-F	1	V		20	.2	
140	CULG	30	0357	0404	0422	N25	E00	.349	17225	30.2	25	-N		C	0404	120	1.3	
141	CULG	30	0420	0432	0512	N15	E06	.207	17228	30.6	52	-F		C	0432	40	.4	
142	CULG	30	0426	0430	0442	N21	E69	.932	17236	4.4	16	-N		C	0430	60	1.5	
143	CULG	30	0431	0446	0512	N25	E00	.349	17225	30.2	41	-N		C	0446	120	1.3	
144	CULG	30	0600	0602	0610	N17	E07	.245	17228	30.8	10	-F		C	0602	60	.6	
GRP89145		30	0613+7	0625 0632+1	0649	S17	W23	.520	17226	28.5	36	1N						EJ
	ABST	30	0613	0632	0651	S18	W23	.530	17226	28.5	38	1F		C	0632	175	2.1	EJ
	YUNN	30	0620	0625	0640	S17	W22	.510	17226	28.6	20	1N		C		290	3.5	EF
	CULG	30	0620	0633U	0649	S17	W23	.520	17226	28.5	29	-N		C	0633	100	1.2	T
GRP89146		30	0714+2	0715+1	0721	N21	E66	.913	17236	4.3	7	-N						D
	ABST	30	0714E	0715	0719	N21	E66	.913	17236	4.3	5D	-F		P	0715	87		D
	CULG	30	0715	0715	0721	N21	E69	.932	17236	4.5	6	-N		C	0715	10	.2	
	LEAR	30	0716	0716	0721	N22	E65	.907	17236	4.2	5	-N	3	C		31		
147	CULG	30	0716	0718	0738U	N32	E44	.759	17235	2.6	22D	-N		C	0718	20	.3	
GRP89148		30	0720+2	0723+8	0744	S17	W90	1.000	17212	23.6	24	1N				120		AV
	CATA	30	0720	0730	0740	S18	W90	1.000	17212	23.6	20	2F		C	0730	281		
	LEAR	30	0722	0726	0744	S16	W89	1.000	17212	23.6	22	1N	3	C				
	ABST	30	0722	0723	0729	S18	W90	1.000	17212	23.6	7	1N		C	0723	96		ADV
	ABST	30	0722	0725	0734	S16	W90	1.000	17212	23.6	12	1N		C	0725	87		AD
	CULG	30	0723U	0726	0737U	S16	W88	1.000	17212	23.7	14D	1N		C	0726	60		
	PEKG	30	0727E	0731	0755	S18	W92	1.002	17212	23.4	28D	1N		P	0731	168		A
	ABST	30	0727	0728	0735	S17	W90	1.000	17212	23.6	8	1N		C	0728	87		ADV
	ABST	30	0729	0730	0733	S20	W90	1.000	17212	23.6	4	1N		C	0730	96		ADV
	YUNN	30	0737E	0737	0755	S16	W90	1.000	17212	23.6	18D	3N		P		448		A
GRP89149		30	0808>9	0823+2	0841	S17	W24	.531	17226	28.5	33	-F						E
	YUNN	30	0808	0823	0835	S17	W24	.531	17226	28.5	27	-N	*	C		161	2.0	
	HTPR	30	0822	0825	0847	S17	W24	.531	17226	28.5	25	-F	*	C	0825	20	.2	E
150	ABST	30	0813	0814	0818	N21	E66	.913	17236	4.3	5	-F		C	0814	87		DV
151	HTPR	30	0814	0816	0820	S03	W06	.168	17232	29.9	6	-F		C	0816	20	.2	
GRP89152		30	0905+5	0905+5	0930	N18	E07	.260	17228	30.9	25	-F				150	1.6	E
	ABST	30	0905	0905	0908D	N18	E07	.260	17228	30.9	3D	-F		P	0906	183	1.9	E
	HTPR	30	0905	0906	0925	N18	E06	.253	17228	30.8	20	-N		C	0906	100	1.0	E
	LEAR	30	0906	0908	0930	N17	E08	.253	17228	31.0	24	-N	3	C		173		
	CATA	30	0910	0910	0930	N18	E07	.260	17228	30.9	20	-F		C	0910	169	1.8	
153	CATA	30	1055	1055	1100	N02	E63	.890	17240	4.2	5	-F		C	1055	68	1.5	
154	HTPR	30	1114	1116	1125	S04	W08	.203	17232	29.9	11	-N		C	1116	80	.8	E
GRP89155		30	1210>9	1215 1243	1245	S16	W25	.533	17226	28.6	35	-F						
	CATA	30	1210	1215	1245D	S17	W25	.542	17226	28.6	35D	1F		P	1215	169	2.1	
	HTPR	30	1242	1243	1245	S16	W26	.544	17226	28.6	3	-F		C	1243	20	.2	
156	HTPR	30	1331	1332	1345	S04	W15	.297	17232	29.4	14	-N		C	1332	80	.8	E
157	HTPR	30	1357	1358	1407	S05	W10	.239	17232	29.8	10	-F		C	1358	30	.3	E

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	Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
158	HOLL	30	1613	1641	1646	N23	E58	.856	17236	4.0	33	-F	3	C		30		
159	HOLL	30	1639	1640	1650	S03	W10	.217	17232	29.9	11	-N	3	C		35		
160	CULG	30	2155	2201	2212	N18	E00	.232	17228	30.9	17	-F		C	2201	80	.8	
161	LEAR	31	0050	0052	0057	N07	E09	.162	17231	31.7	7	-F	3	C		22		
162	YUNN	31	0120	0124	0125	S04	W19	.355	17232	29.6	5	-N		C		128	1.4	E
163	YUNN	31	0120	0123	0125	S17	W34	.641	17226	28.5	5	-N		C		80	1.1	E
164	CULG	31	0133	0137	0154	N22	E52	.801	17236	4.0	21	-F		C	0137	40	.7	T
GRP89165		31	0156+9	0205+1	0211	N21	E53	.809	17236	4.1	15	-N				50	.9	D
	LEAR	31	0156	0206U	0214	N21	E54	.818	17236	4.1	18	-N	3	C		36		
	CULG	31	0203	0205	0215	N22	E52	.801	17236	4.0	12	-N		C	0205	40	.7	T
	PURP	31	0205E	0205	0207	N22	E53	.811	17236	4.1	2D	-N		C				D
	YUNN	31	0205	0206	0207	N20	E54	.816	17236	4.1	2	-N		C		80	1.5	D
GRP89166		31	0203+3	0205+2	0211	S17	W31	.608	17226	28.8	8	-N				70	.9	D
	CULG	31	0203	0205	0211	S18	W30	.604	17226	28.8	8	-B		C	0205	80	.9	
	PURP	31	0205E	0205	0209	S17	W31	.608	17226	28.8	4D	-B		C				D
	YUNN	31	0206	0206	0211	S17	W31	.608	17226	28.8	5	-N		C		80	1.1	D
	LEAR	31	0206E	0207U	0208D	S16	W32	.612	17226	28.7	2D	-B	3	C		55		
	MANI	31	0207E	0207U	0212D	S16	W31	.600	17226	28.8	5D	-F	1	V		20	.3	
167	CULG	31	0217	0232	0312	N22	W15	.387	17225	30.0	55	-F		C	0232	160	1.8	F
168	CULG	31	0247	0251	0300	N22	E52	.801	17236	4.0	13	-N		C	0251	40	.7	T
169	YUNN	31	0330	0342	0350	S17	W34	.641	17226	28.6	20	-N		C		64	.8	ET
170	YUNN	31	0345	0346	0350	N23	E23	.483	17230	1.9	5	-F		C		48	.6	GT
171	YUNN	31	0400E	0400	0405	S17	W34	.641	17226	28.6	5D	-N		P		32	.4	
172	YUNN	31	0511	0515	0520	N19	E51	.786	17236	4.0	9	-N		C		32	.5	
GRP89173		31	0523>9	0529	0559	N22	E51	.792	17236	4.0	36	-N						W
				0551														
	CULG	31	0523	0529	0547	N22	E51	.792	17236	4.0	24	-N		C	0529	50	.8	T
	YUNN	31	0545	0551	0610	N22	E51	.792	17236	4.1	25	-N		C		113	1.9	W
GRP89174		31	0524+2	0528+2	0538	N18	W20	.403	17225	29.7	14	-N				70	.8	D
	CULG	31	0524	0528	0540	N18	W20	.403	17225	29.7	16	-N		C	0528	100	1.1	
	YUNN	31	0526	0530	0535	N19	W20	.412	17225	29.7	9	-N		C		48	.5	D
GRP89175		31	0601>9	0605	0707	N21	E50	.780	17236	4.0	66	1N				130	2.1	EJK
				0648+4														
	CULG	31	0601	0618U	0642	N22	E50	.782	17236	4.0	41	-N	*	C	0618	40	.7	T
	MITK	31	0601	0605	0709	N21	E51	.789	17236	4.1	68	-F		C				
	YUNN	31	0615	0652	0707	N21	E51	.789	17236	4.1	52	1N	*	C		193	3.2	K
	PURP	31	0618	0649	0655	N21	E50	.780	17236	4.0	37	1N	*	C				
	ABST	31	0627E	0651	0711D	N21	E51	.789	17236	4.1	44D	1F	*	P	0651	157	2.7	EJ
	CULG	31	0647	0648	0659	N22	E50	.782	17236	4.0	12	-N	*	C	0648	40	.7	T
	LEAR	31	0649E	0651U	0713	N21	E50	.780	17236	4.0	24D	-B	*	C		101		
176	CULG	31	0656	0657	0708	N17	E07	.246	17229	31.8	12	-F		C	0657	90	.9	
GRP89177		31	0701+3	0703+2	0711	N07	E04	.082	17231	31.6	10	-N				60	.6	
	CULG	31	0701	0704	0711	N07	E04	.082	17231	31.6	10	-N		C	0704	90	.9	
	LEAR	31	0702	0703	0717	N07	E03	.068	17231	31.5	15	-F	3	C		41		
	YUNN	31	0704	0705	0707	N08	E04	.092	17231	31.6	3	-N		C		64	.7	
178	CULG	31	0707	0715	0739	S04	W19	.355	17232	29.9	32	-N		C	0715	60	.7	

H - ALPHA SOLAR FLARES

OCTOBER 1980

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs	Type	Area Measurement Time (UT)	Appar (Disk)	Corr (Sq Deg)	Remarks
GRP89179	31	0715+6	0721+5	0733	N23	E52	.803	17236	4.2	18	-N				110	1.9	K
CULG	31	0715	0721	0733	N23	E52	.803	17236	4.2	18	-N		C	0721	80	1.4	T
CATA	31	0720E	0725	0730D	N21	E52	.799	17236	4.2	10D	-F		P	0725	84	1.4	
YUNN	31	0720	0725	0735	N23	E54	.822	17236	4.4	15	1N		C		161	2.8	EK
PURP	31	0721	0726	0732	N23	E52	.803	17236	4.2	11	-N		C				D
180 CULG	31	0736	0739	0746	N23	W14	.389	17225	30.3	10	-F		C	0739	70	.8	
181 CATA	31	0755	0755	0805	S17	W34	.641	17226	28.8	10	-F		C	0755	28	.4	
182 HTPR	31	0758E		0820	N21	E50	.780	17236	4.1	22D	-N		C	0804	40	.6	E
183 HTPR	31	0837	0842	0920	N21	E50	.780	17236	4.1	43	-F		C	0842	20	.3	
184 YUNN	31	0852	0857	0900	N16	E82	.988	17244	6.5	8	-N		C		48		WK
185 YUNN	31	0930	0940	0947	S03	W22	.394	17232	29.7	17	-N		C		113	1.3	D
186 HTPR	31	0931	0937	0945	S18	W36	.670	17226	28.7	14	-B		C	0937	30	.4	
187 HTPR	31	0947	1015	1040	N21	E49	.769	17236	4.1	53	-F		C	1015	30	.5	
GRP89188	31	1110	1148	1215	N21	E49	.769	17236	4.1	65	-F						E
HTPR	31	1110	1148	1215	N21	E49	.769	17236	4.1	65	-F		C	1148	50	.8	E
WEND	31	1134E		1141D	N21	E49	.769	17236	4.2	7D	-N		C	1134	62	1.0	
GRP89189	31	1147+3	1149	1200	S05	W23	.420	17232	29.8	13	-N				80	.9	
HTPR	31	1147	1149	1200	S05	W24	.435	17232	29.7	13	-N		C	1149	60	.7	
CATA	31	1150	1150	1150D	S05	W23	.390	17232	29.8		-F		P	1150	96	1.1	
190 HTPR	31	1205	1212	1240	N17	E78	.975	17244	6.4	35	-N		C	1212	30		
191 HTPR	31	1225	1237	1253	N21	E48	.759	17236	4.1	28	-F		C	1237	40	.6	E
GRP89192	31	1232+3	1239+0	1306	N14	W19	.358	17228	30.1	34	1N						
RAMY	31	1221	1239	1307	N14	W19	.358	17228	30.1	46	1B	*	C		280		D
HTPR	31	1232	1239	1305	N18	W16	.353	17228	30.3	33	-B	*	C	1239	120	1.2	E
CATA	31	1235	1245	1245D	N14	W20	.373	17228	30.0	10D	1F	*	P	1245	225	2.5	
193 CATA	31	1245	1245	1245D	N15	W28	.492	17225	29.4		*-F	*	P	1245	56	.7	
194 RAMY	31	1253	1253	1309	S05	W23	.420	17232	29.8	16	-F	3	C		28		
195 HTPR	31	1257		1317D	N01	E54	.809	17240	4.6	20D	-N		C	1304	50	.9	
GRP89196	31	1347+9	1348 1357	1431	N21	E46	.738	17236	4.0	44	1N						E
HTPR	31	1347	1348	1430	N21	E47	.749	17236	4.1	43	1B		C	1348	150	2.1	E
HOLL	31	1356	1357	1431	N22	E46	.741	17236	4.0	35	1N	1	C		221		
197 RAMY	31	1355	1356	1424	N17	W30	.529	17225	29.3	29	-F	3	C		23		
GRP89198	31	1405	1407 1420	1437	N12	E76	.968	17244	6.3	32	-F						
HOLL	31	1405	1407	1416	N15	E77	.972	17244	6.4	11	-F	2	C				
HOLL	31	1405	1420	1437	N10	E75	.963	17244	6.2	32	-F	3	C				
199 HOLL	31	1419	1420	1448	N14	W14	.288	17228	30.5	29	-F	3	C		72		
GRP89200	31	1509+0	1510+1	1517	N04	E54	.807	17240	4.7	8	-F				25	.4	
RAMY	31	1509	1511	1516	N05	E53	.797	17240	4.6	7	-F	3	C		30		
HOLL	31	1509	1510	1518	N04	E56	.827	17240	4.8	9	-F	3	C		21		
201 HOLL	31	1637	1643	1724	N15	W14	.298	17228	30.6	47	-F	3	C		44		
202 HOLL	31	1644	1650	1704	N04	E52	.786	17240	4.6	20	-F	3	C		20		
203 HOLL	31	1956	1956	2023	N18	E73	.953	17244	6.3	27	-N	3	C				
204 HOLL	31	2027	2027	2046	S04	W30	.517	17232	29.6	19	-F	3	C		59		

H - ALPHA SOLAR FLARES

OCTOBER 1980

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	Cen Dist	Hale Plage Region	CMP Day	Dur (Min)	Imp	Obs Type	Area Time (UT)	Measurement Appar (Disk)	Corr (Sq Deg)	Remarks
205 CULG	31	2036E	2036E	2041	N13	W18	.337	17228	30.5	5D	-F	C	2036	40	.4	
GRP89206	31	2121>9	2151+3	2221	N03	E52	.787	17240	4.8	60	-N					F
CULG	31	2121	2154	2211D	N02	E52	.788	17240	4.8	50D	1N	* C	2154	130	2.3	F
HOLL	31	2136	2151	2221	N04	E52	.786	17240	4.8	45	-N	* C		51		

"Remarks":

A = Eruptive prominence whose base is less than 90° from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by high-speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the H and K lines of Ca II.
P = Flare shows helium D3 in emission.
Q = Flare shows Balmer continuum in emission.
R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
S = Brightness follows disappearance of filament in same position.
T = Region active all day.
U = Two bright branches, parallel or converging.
V = Occurrence of an explosive phase: important, expansion within roughly 1 minute that often includes a significant intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide H-alpha line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

The 4-digit number appearing under "Remarks" denotes the calcium plage region number assigned by the Space Environment Services Center in Boulder, Colorado.

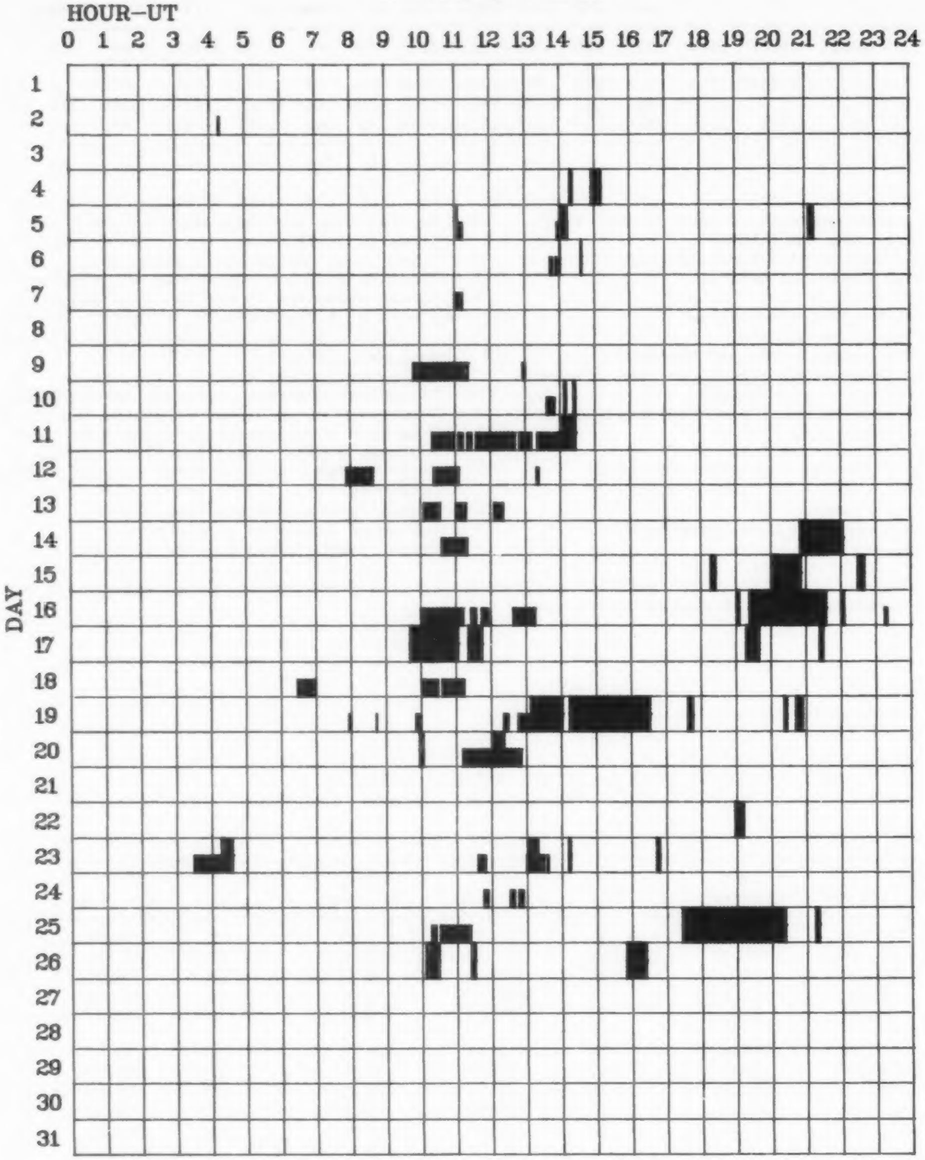
DAILY FLARE INDICES
(Includes all Flares)

October 1980

Day	Flare Index*	Hours Observed	Day	Flare Index*	Hours Observed	Day	Flare Index*	Hours Observed
01	114.62	24.0	11	381.85	23.6	21	116.56	24.0
02	81.45	24.0	12	220.35	24.0	22	162.56	23.7
03	160.76	24.0	13	385.13	24.0	23	97.51	23.2
04	58.69	23.6	14	3397.99	22.8	24	37.80	24.0
05	74.10	23.6	15	969.37	22.8	25	46.97	20.9
06	52.20	23.9	16	164.75	21.7	26	70.62	22.9
07	315.61	24.0	17	62.95	21.7	27	130.57	24.0
08	198.07	24.0	18	141.25	24.0	28	157.99	24.0
09	164.93	24.0	19	101.54	20.3	29	101.80	24.0
10	183.19	23.9	20	81.35	23.5	30	146.46	24.0
						31	176.45	24.0

*When no flare index is given, it is zero for that day.

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE
OCTOBER 1980



Observatories included in total patrol:

Abastumani	Catania	Istanbul	Lvov	Ramey
Athens	Culgoora	Kanzelhoehe	Manila	Tashkent
Big Bear	Haute-Provence	Kharkov	Palehua	Voroshilov
Bucharest	Holloman	Kodaikanal	Peking	Wendelstein
		Learmonth	Purple Mt.	Yunnan

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

SGD 465 Part II (Comprehensive)

MISCELLANEOUS DATA

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ACTIVE REGIONS
CARRINGTON ROTATION 1723
(June 14 to July 12, 1982)

Region No.	Coordinates Lat.	Long.	IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1722	Activity at West Limb
1	14°S	354	2	>6			decreasing
2	0	347	1	-3	x		decreasing
3	5°S	342	1	-5	x		(?)
4	23°S	341	2	+3			disappeared
5	7°N	338	3	>6			decreasing
6	10°N	338	1	>6	x		dispersed
7	13°N	337	1	+5	x		dispersed
8	14°S	335	1	+5	x		dispersed
9	23°N	325	1	>6	x	6	dispersed
10	13°N	311	7	>6			decreasing
11	26°N	303	1	>6	x		dispersed
12	23°N	288	1	+5	x		disappeared
13	16°N	284	3	+1			decreasing
14	13°N	283	4	+1			stable
15	20°S	280	3	>6		19	decreasing
16	21°N	278	2	>6			decreasing
17	17°N	274	4	+5			decreasing
18	3°S	269	3	0			decreasing
19	24°S	265	1	-1	x		decreasing
20	22°S	260	1	-2	x		decreasing
21	14°N	258	1	-2	x		decreasing
22	17°N	241	3	+6			decreasing
23	5°S	210	1	>6	x	28	dispersed
24	27°S	199	1	+5	x		dispersed
25	8°S	193	1	>6	x		disappeared
26	15°S	179	2	+4			decreasing
27	6°N	178	2	+5			decreasing
28	7°S	152	1	>6	x	31	dispersed
29	13°S	150	1	>6	x		decreasing
30	12°S	125	1	>6	x		dispersed
31	13°N	121	1	>6	x		dispersed
32	14°N	115	1	-5	x		(?)
33	7°N	108	2	>6			dispersed
34	6°N	101	1	>6	x		dispersed
35	10°S	92	2	>6		40	decreasing
36	2°S	91	1	>6	x		decreasing
37	10°S	63	2	-3			decreasing
38	16°N	40	2	>6			decreasing
39	15°N	38	2	-1			decreasing
40	27°S	35	1	>6	x		dispersed
41	19°S	30	2	>6			decreasing
42	10°N	29	2	-2			decreasing
43	11°S	28	1	>6	x		dispersed
44	16°S	28	2	>6			decreasing
45	22°S	17	1	>6	x		decreasing
46	8°S	15	1	+2	x		dispersed
47	17°S	5	1	>6	x		dispersed

ACTIVE REGIONS
CARRINGTON ROTATION 1724
(July 12 to August 8, 1982)

Region No.	Coordinates Lat.	Long.	IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1723	Activity at West Limb
1	17°N	352	1	+3	x		disappeared
2	11°N	351	3	>6			decreasing
3	7°N	344	1	>6	x		disappeared
4	16°N	340	1	>6	x		dispersed
5	25°S	338	3	+5			decreasing
6	15°N	326	2	>6			decreasing
7	11°N	322	7	>6			stable
8	20°S	315	1	+2	x		disappeared
9	25°N	315	1	>6	x		decreasing
10	7°S	312	2	+6			decreasing
11	18°N	309	4	>6			decreasing
12	13°N	308	1	>6	x		decreasing
13	11°S	303	3	+1			decreasing
14	12°S	302	3	>6			decreasing
15	7°S	294	1	>6	x		dispersed
16	30°N	288	1	>6	x		decreasing
17	13°N	284	1	>6	x	14	decreasing
18	21°S	281	1	>6	x	15	dispersed
19	19°N	280	4	>6			decreasing
20	20°S	280	2	>6			decreasing
21	12°N	279	5	+2			decreasing
22	4°S	279	2	>6			decreasing
23	15°N	274	2	+1			decreasing
24	23°N	272	3	>6			decreasing
25	4°S	271	1	>6	x		dispersed
26	6°N	267	1	+4	x		disappeared
27	23°S	266	2	+5			decreasing
28	15°N	265	2	-2			decreasing
29	14°S	247	1	+5	x		disappeared
30	17°N	247	1	>6	x		decreasing
31	18°N	234	2	>6			decreasing
32	22°N	220	1	>6	x		dispersed
33	11°N	197	2	+6			disappeared
34	27°S	197	1	>6	x		dispersed
35	18°S	170	2	+5			decreasing
36	13°S	141	2	+2			decreasing
37	13°N	123	1	>6	x		dispersed
38	7°N	110	2	+6			decreasing
39	12°S	98	1	>6	x	35	decreasing
40	12°S	63	4	>6			decreasing
41	16°S	41	2	>6			decreasing
42	16°S	29	1	>6	x	44	dispersed
43	23°S	27	1	>6	x		dispersed
44	11°N	24	3	+1			decreasing
45	10°N	19	3	+2			decreasing
46	18°S	16	2	0			decreasing
47	25°S	10	1	+2	x		disappeared
48	18°S	5	1	+2	x		dispersed
49	14°S	4	2	>6			decreasing
50	10°N	2	1	>6	x	1*	decreasing
51	12°S	0	2	+5			decreasing

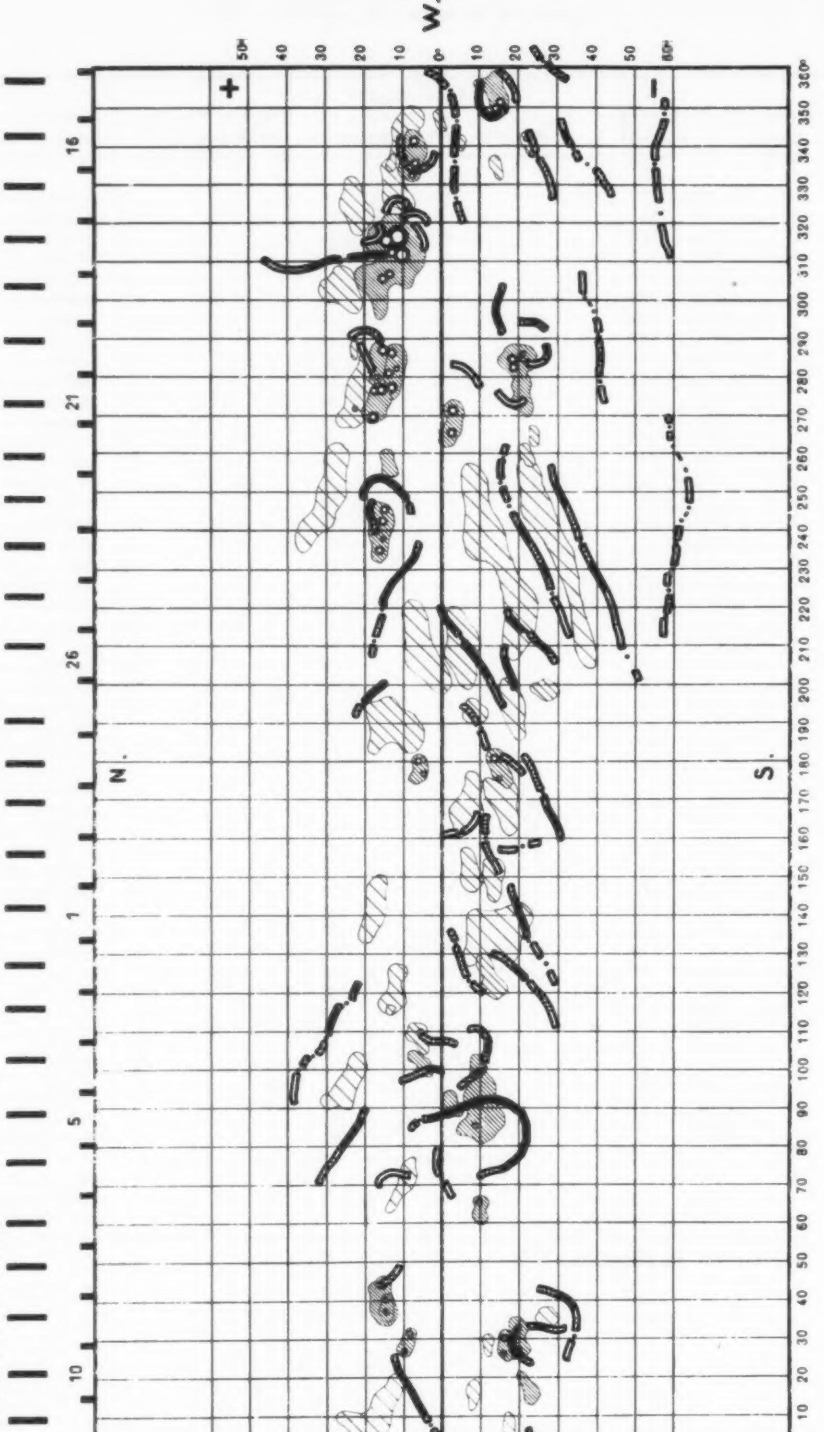
*Region No. in Rotation 1724

SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1723

JUNE 14 – JULY 12, 1982

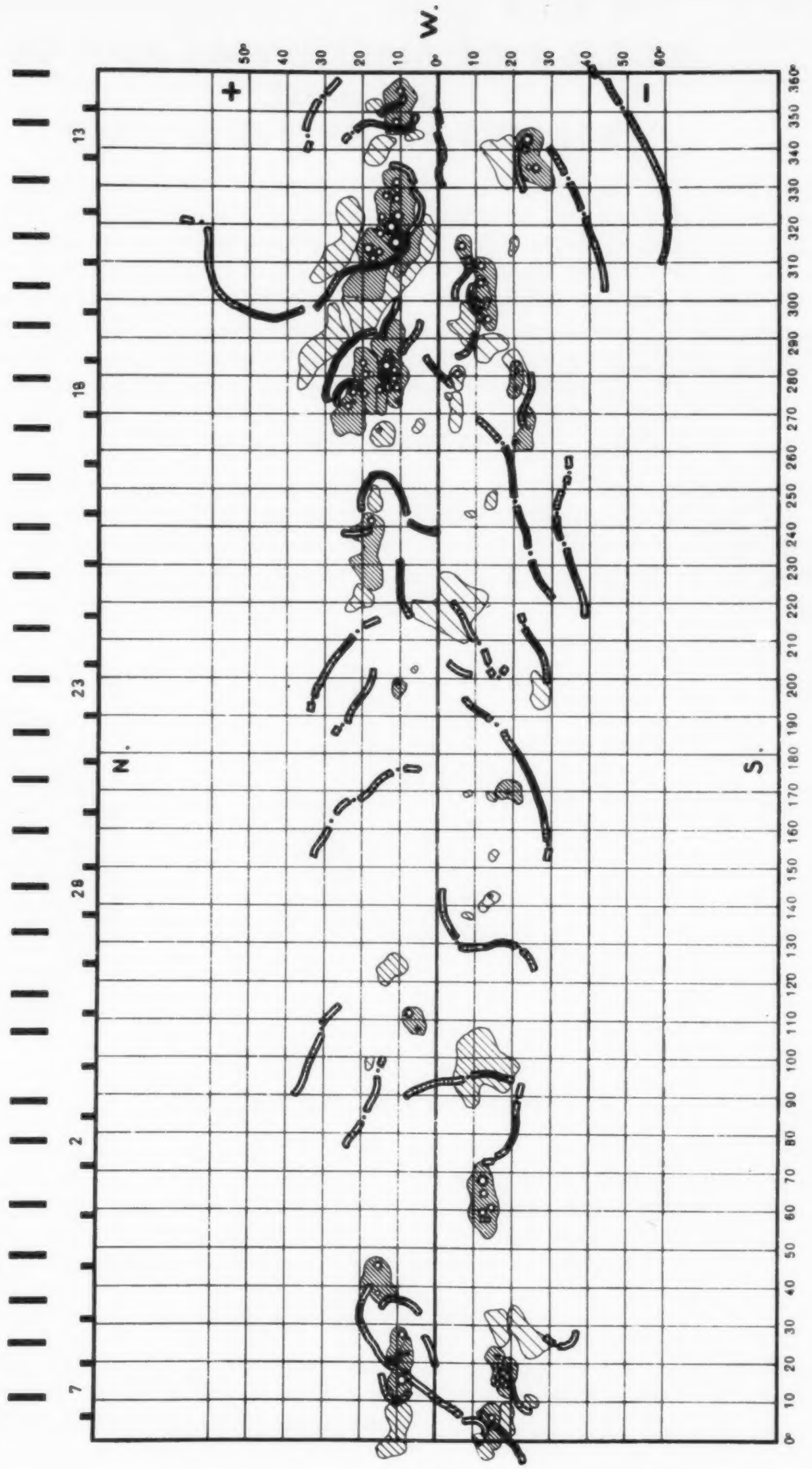
MEUDON OBSERVATORY



SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1724
JULY 12-AUGUST 8, 1982

MEUDON OBSERVATORY



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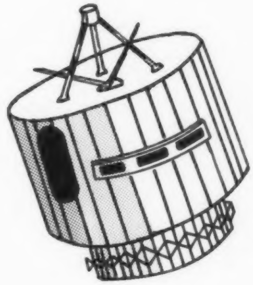
DATA ANNOUNCEMENT

SPACE ENVIRONMENT DATA from the SMS & GOES SATELLITES

The Space Environment Monitor instrument package on-board all SMS/GOES satellites has provided magnetometer, energetic particle, and soft X-ray data continuously since July 1974. Two SMS/GOES satellites operate simultaneously in the Earth's equatorial plane. They travel in geosynchronous orbit (6.67 Earth radii) and are generally located at 75° and 135° west longitude. This trajectory allows the detectors an unobstructed view of the Sun for all but the few dozen hours per year that the Earth eclipses the Sun. The time resolution for all three sensors is approximately 3 seconds, which permits one month's data from each sensor to be stored on a single 9-track, 1600-BPI, binary tape. Plots are available on microfilm.

MAGNETOMETER

A twin fluxgate spinning sensor allows representation of the Earth's magnetic field in three mutually perpendicular components: H_p, H_e and H_n. H_p is parallel to the satellite spin axis, which is itself perpendicular to the satellite's orbital plane. H_e lies parallel to the satellite-Earth center line and points earthward. H_n is perpendicular to both H_p and H_e, and points westward. Field strength changes as small as 0.2 gamma can be measured.



PARTICLE DETECTOR

Solid state detectors with pulse height discrimination measure protons from 0.8 to 500 MeV, alpha particles from 4.0 to 392 MeV, and electrons with kinetic energies greater than or equal to 2.0 MeV. Since solar protons and alpha particles in these energy ranges accelerated in solar flares can reach the vicinity of Earth, they pose a hazard to manned space flight and to high-altitude aircraft. They can as well significantly affect the high-latitude ionosphere.

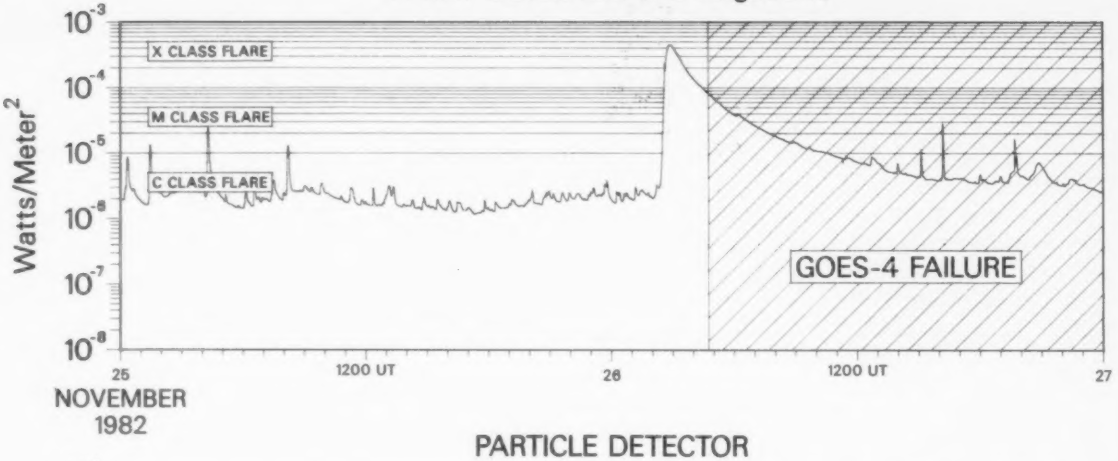
X-RAY DETECTOR

Ion chamber detectors provide whole Sun fluxes for the 0.5-to-4 and 1-to-8 Angstrom X-ray wavelength bands. These observations furnish a sensitive means of detecting the start of solar flares and thereby changes in the dayside ionosphere.

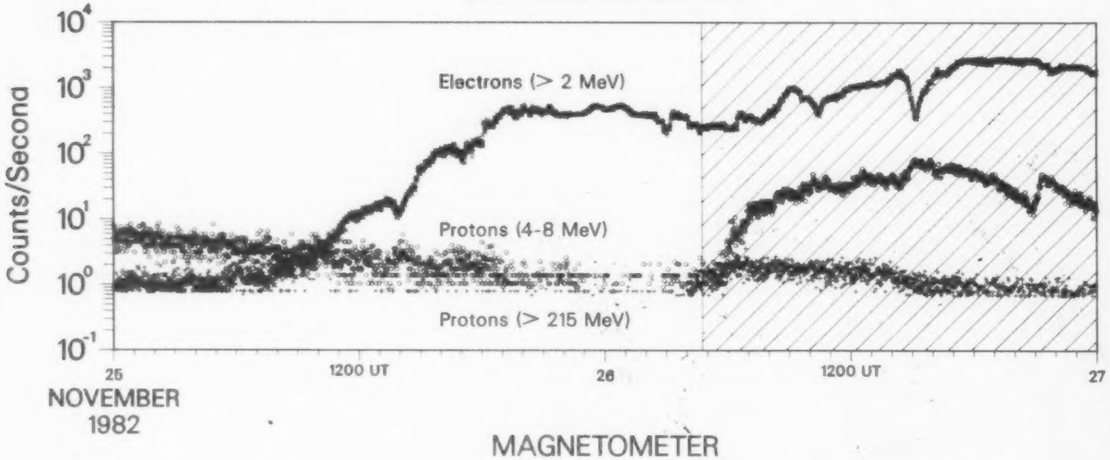
Address your inquiries to Mrs. Viola Miller, National Geophysical Data Center, NOAA code D631, 325 Broadway, Boulder, Colorado 80303, USA (Telephone (303) 497-6136, FTS 320-6136).

GOES-2 SPACE ENVIRONMENT MONITOR
(108° West Longitude)

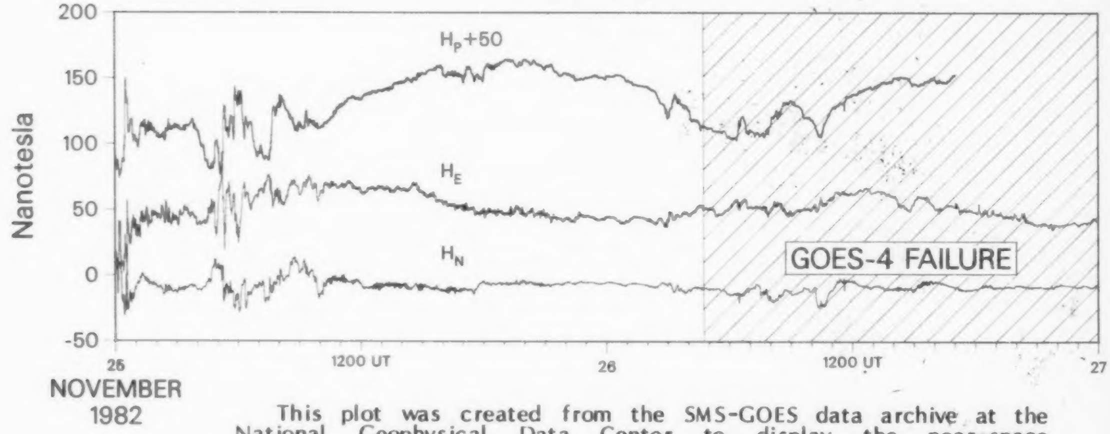
X-RAY DETECTOR (1-8 Angstrom)



PARTICLE DETECTOR



MAGNETOMETER



This plot was created from the SMS-GOES data archive at the National Geophysical Data Center to display the near-space environment coincident with the failure of the GOES-4 satellite. See the inside back cover of this issue of 'Solar-Geophysical Data' for more information concerning this valuable archive.

OR